

# **Bank Hapoalim B.M.**

## **Report on Risks – Pillar 3 Disclosure and Additional Information Regarding Risks as at December 31, 2019**

# Bank Hapoalim

Report on Risks

Pillar 3 Disclosure and Additional

Information Regarding Risks

as at December 31, 2019



# 2019



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This is a translation of the Hebrew report and has been prepared for convenience only. In case of any discrepancy, the Hebrew version will prevail.

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## Report on Risks

We are honored to present the Report on Risks: Pillar 3 Disclosure and Additional Information Regarding Risks as at December 31, 2019 (hereinafter: the "Report on Risks" or the "Report").

The information in this Report, as required by the reporting directives of the Bank of Israel, includes disclosure requirements issued by the Basel Committee and risk disclosure requirements based on other sources, including disclosure requirements issued by the Financial Stability Forum (FSF) and disclosure requirements issued by a task force established by the Financial Stability Board (FSB) in order to improve risk disclosure at banking corporations.

In accordance with the requirements of the Law for Increasing Competition and Reducing Concentration in the Banking Market in Israel (Legislative Amendments), 2017 (the "Law for Increasing Competition"), on April 8, 2019, the Bank sold approximately 65.2% of the capital of Isracard in a public sale offering. After the sale, the Bank retained a holding of approximately 33% of the shares of Isracard, which is accounted for using the equity method, and presented within assets attributed to a discontinued operation. On March 9, 2020, the remaining holdings in shares of Isracard were distributed as a dividend in kind to the shareholders of the Bank; the Bank thereby completed its separation from Isracard, as required by the Law for Increasing Competition, and no longer has holdings in Isracard. As stated in Note 1G to the Financial Statements, the data of the Isracard Group are not presented in the detailed information below. For further information, see Section 2.6.1 of the Report of the Board of Directors and Board of Management of the Bank for 2019.

This Report on Risks is published within the financial reporting of Bank Hapoalim B.M., and contains extensive information regarding the management of risks and capital. This report should be perused in conjunction with the financial statements.

Sincerely yours,

**Oded Eran**

Chairman of the  
Board of Directors

**Dov Kotler**

President and  
Chief Executive Officer

**Amir Bachar**

Senior Deputy Managing Director  
Chief Risk Officer

Tel Aviv, March 18, 2020



## **A. Introduction**

### **A.1. Forward-looking information**

Most of the information in this report that does not refer to historical facts (even if it is based on processing of historical data) constitutes forward-looking information, as defined in the Securities Law, 1968. The actual results of the Bank may differ materially from those included in forward-looking information, including, among other factors, as a result of changes in capital markets in Israel and globally, macro-economic changes, changes in geopolitical conditions, regulatory changes, accounting changes, changes in taxation rules, and other changes not under the Bank's control, which may lead to the failure of estimates to materialize and/or to changes in the Bank's business plans. Forward-looking information is marked by words or phrases such as "forecast," "plan," "objective," "risk estimate," "scenario," "stress scenario," "risk assessment," "correlation," "distribution," "we believe," "expect," "predict," "estimate," "intends," "plans," "aims," "may change," "should," "can," "will," or similar expressions. Such forward-looking expressions involve risk and uncertainty, because they are based on management's estimates regarding future events, which include changes in the following parameters, among others: economic conditions, public tastes, interest rates in Israel and overseas, inflation rates, new legislation and regulation in the area of banking and the capital market, exposure to financial risks, the financial stability of borrowers, the behavior of competitors, aspects related to the Bank's image, technological developments, manpower-related matters, and other areas that affect the activity of the Bank and the environment in which it operates, the materialization of which is uncertain by nature.

This information reflects the Bank's current viewpoint with regard to future events, which is based on estimates, and is therefore subject to risks and uncertainty, as well as to the possibility that expected events or developments may not materialize at all or may only partially materialize, or even that actual developments may be the opposite of expectations.

The information presented below is based, among other things, on information known to the Bank and based, among other things, on publications by various entities, such as the Central Bureau of Statistics, the Ministry of Finance, the Bank of Israel, the Ministry of Housing, and other entities that publish data and estimates regarding the Israeli and global capital markets.

### **A.2. Disclosure declaration**

Pursuant to the instructions of the Bank of Israel, the disclosure declarations in the periodic financial report of the Bank are also valid for the Report on Risks – Pillar 3 Disclosure and Additional Information Regarding Risks. Within the discussions of the financial statements of the Bank, the Board of Directors of the Bank approved the publication of the Report on Risks – Pillar 3 Disclosure and Additional Information Regarding Risks as at December 31, 2019.

## B. Principal supervisory ratios, risk-management review, and weighted risk-adjusted assets

### B.1. Principal supervisory ratios

Table B-1: Principal supervisory ratios

	On a consolidated basis, as at				
	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018
	NIS millions				
<b>Available capital</b>					
Common equity Tier 1 capital	<b>38,795</b>	39,528	39,852	38,903	38,004
Common equity Tier 1 capital before effect of transitional directives <sup>(1)</sup>	<b>38,138</b>	39,185	39,471	38,484	37,547
Tier 1 capital	<b>39,528</b>	40,261	40,585	39,636	38,981
Tier 1 capital before effect of transitional directives <sup>(1)</sup>	<b>38,138</b>	39,185	39,471	38,484	37,547
Total capital	<b>49,235</b>	50,458	50,846	49,072	49,023
Total capital before effect of transitional directives <sup>(1)</sup>	<b>44,810</b>	45,865	46,176	44,158	*43,284
<b>Risk-weighted assets</b>					
Total risk-weighted assets (RWA)	<b>336,387</b>	332,922	332,991	339,691	340,597
Total risk-weighted assets (RWA) before effect of transitional directives <sup>(1)</sup>	<b>337,271</b>	333,401	333,523	340,277	341,236
<b>Capital-adequacy ratios according to the directives of the Banking Supervision Department</b>					
Common equity Tier 1 capital ratio	<b>11.53%</b>	11.87%	11.97%	11.45%	11.16%
Common equity Tier 1 capital ratio before effect of transitional directives <sup>(1)</sup>	<b>11.31%</b>	11.75%	11.83%	11.31%	11.00%
Tier 1 capital ratio	<b>11.75%</b>	12.09%	12.19%	11.67%	11.44%
Tier 1 capital ratio before effect of transitional directives <sup>(1)</sup>	<b>11.31%</b>	11.75%	11.83%	11.31%	11.00%
Total capital ratio	<b>14.64%</b>	15.16%	15.27%	14.45%	14.39%
Total capital ratio before effect of transitional directives <sup>(1)</sup>	<b>13.29%</b>	13.76%	13.84%	12.98%	*12.68%
Common equity Tier 1 capital ratio required by the Banking Supervision Department <sup>(2)</sup>	<b>10.27%</b>	10.26%	10.26%	10.24%	10.24%
Available common equity Tier 1 capital ratio beyond the requirement of the Banking Supervision Department <sup>(2)</sup>	<b>1.26%</b>	1.61%	1.71%	1.21%	0.92%
<b>Leverage ratios according to the directives of the Banking Supervision Department</b>					
Total exposures	<b>519,648</b>	508,609	511,322	523,012	518,980
Total exposures before effect of transitional directives <sup>(1)</sup>	<b>520,001</b>	508,801	511,535	523,246	519,236
Leverage ratio	<b>7.61%</b>	7.92%	7.94%	7.58%	7.51%
Leverage ratio before effect of transitional directives <sup>(1)</sup>	<b>7.33%</b>	7.70%	7.72%	7.35%	7.23%

\* Restated.

(1) Before the effect of the transitional directives, including the effect of the adoption of US GAAP on employee benefits, and before the effect of adjustments for the efficiency plans.

(2) Including a capital requirement at a rate representing 1% of the balance of housing loans at the dates of the financial statements.

Table B-1: Principal supervisory ratios (continued)

	Average for the three months ended				
	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018
<b>Liquidity coverage ratio according to the directives of the Banking Supervision Department</b>					
Total high-quality liquid assets	<b>109,137</b>	106,503	111,017	109,781	106,375
Total net cash outflows	<b>90,145</b>	85,681	87,247	87,721	88,515
Liquidity coverage ratio (in %)	<b>121%</b>	124%	127%	125%	120%

## B.2. Risk assessment and management

The Bank performs a comprehensive examination to assess the risks to which it is exposed and to determine the materiality of such risks. Within the ICAAP (the Internal Capital Adequacy Assessment Process), the Bank defined the following risks as material risks: credit risk, concentration risk, market risk, investment risk, operational risk (including IT risk and cyber risk), counterparty risk, interest-rate risk in the banking book, liquidity risk, reputational risk, strategic and competitive risk, regulatory risk, and compliance risk. Other risks to which the Bank is exposed are handled directly as part of the management of its business: legal risk, economic risk, and environmental risk.

The risk-management strategy of the Bank Group is designed to support the achievement of the strategic objectives of the Group as a whole, while identifying and quantifying risks, establishing risk ownership, and maximizing business value, taking into consideration costs in terms of risk, by every responsible function at all levels of the organization. Risk management at the Bank is based on a uniform methodology, from a comprehensive perspective, adapted to regulatory requirements, with the aim of supporting informed risk-taking in order to maximize the Group's profitability at a risk level aligned with its risk appetite.

The Bank actively takes risks, to the extent permitted by its risk appetite and risk tolerance. Risks are taken while examining the adequacy of the benefit in business terms. Various banking activities also require the acceptance of a certain degree of risk, even if they are not necessarily profitable in themselves. Unacceptable risks are risks at a level that exceeds the maximum risk tolerance, as defined by the Board of Directors of the Bank, or risks that may impair the strategic position of the Bank to the extent of disruption of the successful continuation of its core activity.

In quantifying risk, the Bank generally endeavors to aggregate risks at the level of the Group as a whole. Accordingly, risk quantification and measurement are performed consistently at all of the legal and organizational entities in the Bank Group, to the extent possible. The Bank deviates from this principle when it is not feasible, or when the effort involved is disproportionate and therefore unfeasible from an economic perspective. Risk quantification is based on appropriate, accepted methods and models. To the extent possible, a range of tools or measurement methods are used, including expert assessments, in order to examine exposure from different perspectives.

### **B.2.a. Risk management system structure and organization**

Risk management is performed based on a global view of the Bank's activity in Israel and of activity at the Bank's branches abroad, with due attention to the activity of subsidiaries with exposure significant for the Group. The subsidiaries are instructed to manage risks based on the strategy and policy of the Group, with adjustments according to the circumstances, which are reported to the parent company. Risks are managed separately by each company in the Bank Group, according to policy formulated by each company's board of directors. The Bank manages the various risks while hedging some risks. The Supervisor of Banks has set forth guidelines concerning risk management in the Proper Conduct of Banking Business Directives. The directives detail the requirements of the Supervisor for the management of the various risks to which a banking corporation is exposed, and stipulate fundamental principles for the management and control of risks, including suitable involvement in and thorough understanding of risk management by the board of directors of the banking corporation, the management of risks by a risk manager who is a member of the board of management, the employment of tools for the identification and measurement of risks, and the creation of means for supervision and control, including the existence of an independent risk-control function. The Bank operates in accordance with the guidelines of the Supervisor of Banks.

The approach taken with regard to control of all financial and operational risks at the Bank involves identification and assessment of the risks, and control of compliance with risk-appetite limits and with additional limits stipulated in the various internal regulations, through three lines of defense:

1. The first line of defense includes the business units within the divisions, including supporting and operational divisions, that create or take risks, as well as the internal control units within the divisions that provide internal control over the risk creators and risk takers. The management of the business line bears the initial responsibility for routine risk management, aimed at managing risks while striving to achieve strategic goals and business objectives, within the established risk appetite and in accordance with the internal risk regulations and regulatory directives. Controls in the first line of defense are formalized in working procedures.
2. The second line of defense consists of the control units at the Risk Management Division, which is independent of the business divisions. This line is also responsible for presenting an overview of risks; formulating methodologies for risk assessment and for economic capital allocation; independent risk assessment; analysis of the congruence of products and activities with the risk-appetite framework and risk capacity established by the Board of Directors; and validating models. The second line of defense contains additional independent control functions, such as accounting and legal counsel.
3. The third line of defense consists of Internal Audit, which operates independently and objectively. Its goals include assisting the organization in achieving its goals through supervision and through ensuring that the instructions of the Board of Management and of the Board of Directors are implemented, and making recommendations for the reduction of risks through improved controls.

**The Board of Directors** of the Bank is responsible for delineating the overall risk-management strategy and supervising the risk-management framework of the Group, directly or through the Risk Management and Control Committee. Main duties of the Board of Directors in the area of risk management are:

- Establishing the risk appetite and risk capacity framework of the Group.
- Approving a risk-management policy consistent with the risk-appetite framework, including the establishment of risk limits in the various areas of activity and main risk areas.
- Approving the control concept framework for the Group and ensuring that it meets risk-management needs.

- Providing clear guidance to senior management with regard to risk management, based on the recommendations of the Board of Management Risk Management Committee, headed by the CEO, and ensuring that senior management takes the necessary actions in order to identify, measure, monitor, and control risks.
- Approving methodologies for risk assessment and control, and for the allocation of economic capital in respect of risks.
- Supervising and monitoring the implementation of the established risk-management policy; examining the actual risk profile, including at the level of the Group; and examining the processes and actions that the Bank must apply in order to comply with all regulatory directives concerning risk management.

**Board of Directors' Committee on Risk Management and Control** – The committee's mission is to assist the plenum of the Board of Directors in formulating the Bank's risk-management policy, including establishing risk limits in the various areas of activity, examining the Bank's risk profile, monitoring the implementation of the established risk-management policy, and examining the processes and actions to be implemented by the Bank in order to comply with all regulatory directives concerning risk management. The Board of Directors' Committee on Risk Management and Control and the **plenum of the Board of Directors** receive reports on risks and on the execution of approved policies at least once each quarter.

**US Risk Management Subcommittee** – The committee's mission is to supervise risk-management policy in the Bank's activity in the United States. The subcommittee examines the risk-management policy of the Bank's activity in the United States, and ascertains that the Bank's activity in the United States is conducted within the bounds of the established risk-management policy.

**Additional committees of the Board of Directors are engaged in matters related to risk management,** most notably the Audit Committee and the Corporate Governance and Stakeholders Committee.

**The Board of Management** of the Bank, including the managements of the divisions, is responsible for formulating, instilling, and implementing the risk-management framework of the Group, directly or through committees acting on its behalf. Main duties of the Board of Management in the area of risk management are:

- Designing a risk-management policy consistent with the risk-appetite framework established by the Board of Directors, including risk limits in the various areas of activity and main risk areas, and submitting this policy to the Board of Directors for approval.
- Establishing guidelines and risk limits aligned with the policy, appropriate work methods for risk assessment, and decision-making processes based on an analysis of return/business benefit versus risk, and receiving the appropriate reports, while ensuring compliance with risk-management policy objectives.
- Ensuring the existence of an internal process for capital assessment and for setting capital targets consistent with the risk profile of the corporation and with its control environment.
- Ensuring the existence of adequate resources for risk management at the Bank, including a framework of internal controls, and the existence of independent, effective, comprehensive control and reporting systems for risks.

**Board of Management Committee on Risk Management and Compliance, headed by the CEO** – Responsible for designing the Bank’s risk-management policy, risk limits, and reporting and control procedures, and for examining the Bank’s overall risk profile and the interactions among the various risk types and factors.

**Additional committees of the Board of Management** operate in specific areas of risk, subject to the risk policies and limits established by the Board of Directors and the Board Committees. Committees have also been established that convene under certain conditions, including the Financial Crises Committee and the Banking Emergency Committee.

The Chief Risk Officer (CRO) and the member of the Board of Management responsible for the Risk Management Division is Dr. A. Bachar.

Financial risks are managed by designated members of the Board of Management and under their responsibility.

The principal members of the Board of Management responsible for managing credit risks are the Head of Corporate Banking, Mr. T. Cohen, and the Head of Retail Banking, Mr. R. Stein until November 12, 2019, and Ms. D. Raviv as of that date.

The member of the Board of Management responsible for managing market, investment, and liquidity risks is the Head of Financial Markets and International Banking, Mr. Y. Antebi.

Legal risk is managed by Attorney Y. Almog, Chief Legal Advisor.

Technological risk, including cyber risk, is managed by Ms. E. Ben-Zeev, Head of Information Technology.

Operational risk, excluding legal risk and technological risk, is managed by each member of the Board of Management in the area of activity for which he or she is responsible. For details regarding changes of members of the Board of Management of the Bank, see the “Other matters” section of the Corporate Governance Report.

**Risk Management Division** – The activities and responsibilities of the division are consistent with Proper Conduct of Banking Business Directive 310. The main objectives of the division are: to instill an advanced culture of risk management and monitoring at the Bank Group, supporting informed risk-taking, with the aim of maximizing the profitability of the Group at a risk level aligned with its risk appetite; to establish risk-management and compliance policies at the level of the Group, in line with the goals of the Group and with the requirements of the Basel Committee and of relevant regulation; and to examine and monitor the overall risk profile of the Bank and its congruence with the risk appetite set by the Board of Directors. Towards that end, the division develops and implements comprehensive and quantitative risk-assessment methodologies and models, which are also used to calculate economic capital.

The division ensures the existence and quality of the key risk-management processes of the Group: identification and assessment of risks; establishment of risk capacity and risk appetite limits; and establishment of mechanisms for control, monitoring of risks, and reporting. The division leads and coordinates the ICAAP (the annual Internal Capital Adequacy Assessment Process, taking risks into account) and participates in capital management. The division comprises four units, headed by the head of the division, who has the rank of a Member of Management: (1) the Credit Risk Management Unit, (2) the Operational and Market Risk Management Unit, (3) the Chief Compliance Officer and Securities Enforcement Unit, and (4) the Risk Integration Unit.

In general, reports of the Risk Management Division submitted to the Board of Directors' Committee on Risk Management and Control for discussion are also submitted to the plenum, as a written report or for discussion, as relevant. Pursuant to the policy of the Bank, the risk-reporting system has been established in a manner that allows effective communication both across the Group and to higher levels of the management chain. The purpose of the reports is to escalate sensitive issues or weaknesses with the potential to cause risk; the reports are performed both on an individual basis and cumulatively, up to the level of the Group as a whole. The reporting system includes the presentation of weaknesses or limitations in risk estimates, as well as significant assumptions on which the estimates are based, and includes routine reports and ad-hoc reports as needed.

**The Risk Management Division also operates several committees, headed by the Chief Risk Officer:**

**Board of Management Steering Committee on Credit Policy** – The committee formulates the credit policy of the Bank.

**Board of Management Committee on Credit Review** – The committee discusses credit review reports prepared for major borrowers of Bank Hapoalim and for risk-based samples of the overall credit portfolio of the Bank, and examines the reliability of the credit rating and the appropriateness of the classifications and allowances of the Group.

**Board of Management Committee on Debt Classification and Determination of the Allowance for Credit Losses** – The committee is engaged in formulating methodology for the collective allowance, formulating policy for classifications and individual allowances, classifying credit, and determining individual allowances for credit losses, subject to the hierarchy of authority.

**Model Risk Management Committee** – The committee formulates the model risk governance framework, manages model risk within the risk appetite, and ensures congruence with model policy and governance. The committee validates models managed in both the first and second lines.

**Additional committees** include the Regulatory Investment Prioritization Committee, the Board of Management Committee on Compliance and Legal Risk Management, and the New York Risk Management Committee.

Chart B-2: Risk and capital management governance diagram of the Bank

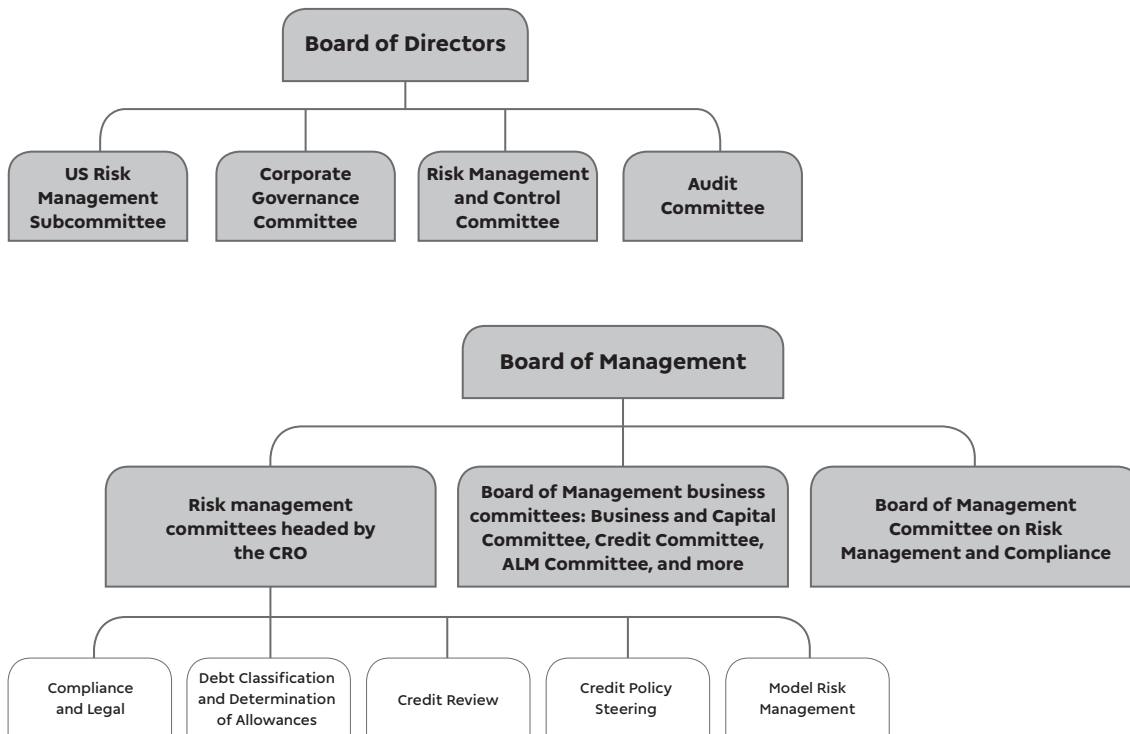
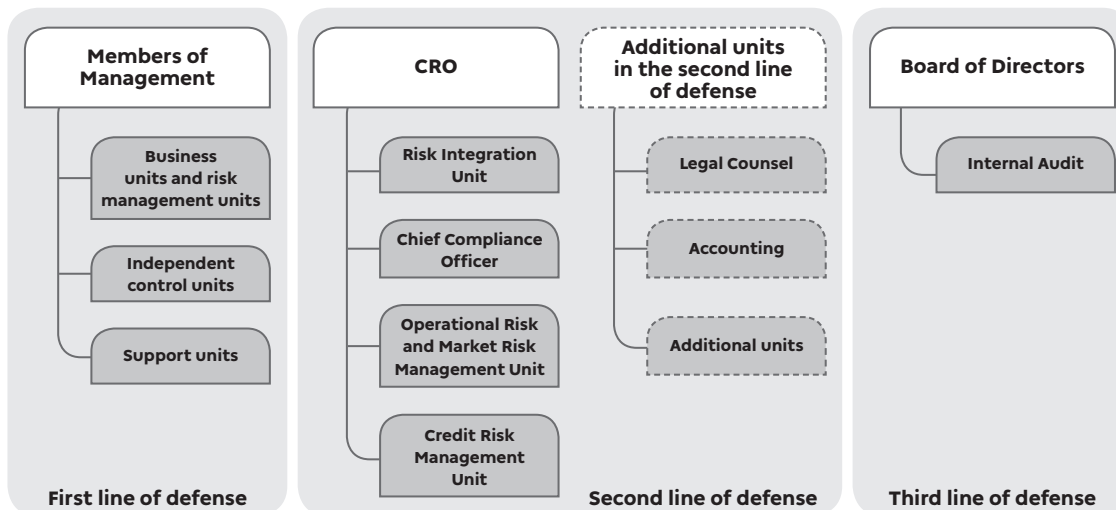


Chart B-3: Risk management organizational structure





### **B.3. Risk-management culture**

The Group develops and maintains a risk-management culture that aids awareness of risk and appropriate behavior and judgment in connection with risk taking in the context of corporate governance, supports effective risk management, promotes appropriate risk taking, and ensures that emerging risks or risk-taking activities are identified, assessed, escalated, and addressed in a timely manner.

The risk-management culture instilled at the Bank Group emphasizes the importance of:

- Direct responsibility of division heads at the Bank and managers of subsidiaries for risks that they take within their authority;
- Achieving the proper balance between risk and reward, subject to the risk appetite;
- An effective system of controls congruent with the size and complexity of the Bank;
- The ability to challenge the quality of risk models, the level of accuracy of the data, the ability of the available tools to measure risks correctly, and the justifications for taking risks;
- Monitoring violation of limits and divergence from established policies, and applying proportional disciplinary proceedings, as necessary;
- Cultivating integrity, with a focus on fair service to customers.

The material principles of the Bank's risk-management culture are also expressed in the implementation of the following guidelines:

- The members of the Board of Directors and senior management delineate expectations for risk-management culture.
- The members of the Board of Directors and Board of Management develop and apply an effective framework of risk appetite, backed by a clear declaration of risk appetite, as detailed above, which is the cornerstone of the Bank's risk-management strategy and is integrated with its overall business strategy.

**Risk appetite:** Risk appetite at the Bank constitutes an effective framework for risk management and a key tool linking the organization's strategy, capital allocation, and risk management. The risk appetite document declares the risk appetite of the Bank and of the Group. The Board of Directors establishes the risk-appetite framework, taking into consideration the recommendations of the Chief Executive Officer, the Chief Risk Officer, and the Chief Financial Officer. The risk appetite is translated into targets and limits for the business lines. The risk-appetite document also establishes the roles and responsibilities of the Board of Directors and senior management in formulating the risk-appetite statement. The risk-appetite framework includes policies, processes, controls, and systems used to implement, communicate, and supervise risk appetite.

The risk-appetite framework includes a statement of risk appetite and risk capacity, risk limits, and descriptions of the roles and responsibilities of those charged with the implementation and control of the risk-appetite framework. The risk-appetite framework refers to the material risks to the Bank, and establishes the risk profile in alignment with the Bank's business strategy and risk capacity. An effective risk-appetite framework provides a shared structure and means for senior management and the Board of Directors to communicate, understand, and evaluate the level of risk that they are willing to accept. The framework explicitly defines the boundaries within which the Board of Management is expected to operate in order to realize the business strategy of the Bank.

The framework includes the following main components:

- Risk-appetite statement: Written formulation of the size and types of aggregate risk that the Bank is interested in bearing in order to achieve its business objectives, including qualitative reports as well as quantitative metrics of profits, capital, risk indicators, liquidity, and other relevant means, as necessary, including:

- Risk capacity: The maximum level of risk that the Bank is able to sustain without violating capital limits relevant to stress tests, including from the perspective of shareholders and customers. Compliance with the risk capacity shall be examined, among other matters, by applying stress tests designed to estimate the impact on profit and capital adequacy as a result of the materialization of a stress scenario.
- Risk appetite: The maximum total aggregate risk that the banking corporation is willing to bear, within its defined risk capacity, in order to achieve its business objectives in accordance with the strategic plan, under various constraints (such as sources of capital and liquidity, regulatory requirements, risk/return characteristics, etc.).
- Risk limits: Quantitative indicators that give practical expression to the aggregate risk-appetite statement of the Bank.
- Remuneration: Documents of principles and standards for remuneration practices are aimed at ensuring effective remuneration management; correlation between remuneration, cautious risk taking, and effective supervision; and involvement of stakeholders in remuneration. The remuneration of employees in general, and of senior executives in particular, takes into consideration the risks taken by the employee on behalf of the Bank, and the employee's performance in terms of fulfillment of the risk policy, compliance, and other important policy rules of the Group. The Risk Management Division is involved in establishing remuneration policies and incentives in a manner that encourages performance and talent management, and reinforces the desired risk-management behavior (see Section P, "Remuneration disclosure," below).
- Responsibility: Risk governance is aimed at achieving full clarity regarding risk ownership, at all levels and in all processes.
- Effective communication and criticism: The risk-management culture of the Group promotes an environment of open communication and effective criticism, and encourages an atmosphere of open, constructive involvement.
- An orderly system of internal regulations of the Bank, including limits, authorizations, and escalation processes supporting risk management. Appropriate procedures exist for anonymous reports of suspicions, in order to support effective compliance with the risk-management framework.
- The code of ethics and conduct of the Bank encompasses standards, morals, colleague relationships, relationships with customers and suppliers, contribution to the community, and social and environmental responsibility. The code clarifies in the ways in which these commitments and values are reflected on the behavioral level during the Bank's routine work, so that alongside its aspiration to leadership and a thriving business, the Bank's actions are grounded in a commitment to morals and values. The code is updated from time to time, and related issues are formalized in designated guidelines.

The following risk management policy documents establish, among other matters, corporate governance, including the duties and responsibilities of the Board of Directors, the Chief Risk Officer, and the risk-management function; an independent evaluation of the corporate-governance framework for risk management; and the status, resources, authority, and independence of the risk management and internal audit functions, and their reports to the committees and to the Board of Directors.

- Bank Hapoalim Group risk appetite document;
- Bank Hapoalim Group risk management policy document;
- Bank Hapoalim Group credit risk management policy document;
- Bank Hapoalim Group treasury risk management policy document;
- Bank Hapoalim Group operational risk management policy document;

- Bank Hapoalim Group control concept policy document;
- Bank Hapoalim Group new product/activity launch policy document;
- Bank Hapoalim Group model risk management policy document;
- Bank Hapoalim Group compliance policy document;
- Bank Hapoalim Group counterparty risk management policy document;
- Bank Hapoalim Group digital banking risk management policy document;
- Bank Hapoalim Group reputational risk management policy document;
- Bank Hapoalim Group cyber risk management policy document;
- Cloud policy document;
- Outsourcing policy document;
- Charter of the Risk Management Division;
- Charters of the committees of the Board of Directors and committees of the Board of Management.

The structure and organization of the risk system and the risk-management culture described in this section are applicable to all types of risks and to all units of the Bank. Each type of risk is addressed further, separately, as relevant, later in this report.

#### **B.4. Stress scenarios**

In order to understand the possible consequences of various shocks for the financial robustness of the Bank, both given the existing balance sheet and upon the materialization of work plans and other business intentions, a process of stress testing is carried out. Three types of scenarios are examined at the Bank for this purpose: general systemic scenarios applied to the entire Bank Group; reverse scenarios; and single-factor scenarios applied at the level of the sector, transaction, borrower, or portfolio, in certain cases, according to predefined thresholds. The Bank adapts the range and characteristics of the scenarios to financial, political, and environmental developments in Israel and globally. In addition, the Bank implements the directives of the Bank of Israel and applies the uniform stress test established by the Banking Supervision Department, when required.

Goals of analysis of stress scenarios:

- Identification of risk concentrations and potential weaknesses in the Bank's portfolio;
- Examination of the effect of strategic decisions of the Bank;
- Integration in the planning process and examination of the effects of the business plan on potential exposures;
- Examination of the financial robustness of the Bank and evaluation of the potential damage that may be caused by extreme events of various types;
- Analysis of the sensitivity of the Bank to shocks or exceptional but possible events;
- Assessment of the materiality of the various risks;
- Examination of the Bank's compliance with its risk appetite and risk capacity, and breakdown of risk appetite by division;
- Support for the business divisions in understanding the risk map of the various areas of activity and sectors;
- Support for the ICAAP and for the formulation of contingency plans in order to minimize the damage of extreme events.

Some of the scenarios are examined daily, while others are examined on a weekly, monthly, quarterly, or annual basis, as relevant. Assumptions, methodology, and results are discussed and approved by the Stress Scenarios and Risk Concentrations Committee and in meetings of the Board of Management and committees of the Board of Directors.

Capital management takes the results of various stress tests into consideration, in several ways: first, the capital target and the business plan of the Bank are determined in view of the risk capacity, which establishes the minimum capital adequacy that the Bank is willing to reach in the event of a stress scenario. Second, capital planning includes contingency plans which the Bank can activate if a stress scenario materializes, in order to improve its capital adequacy. Stress scenarios are tested for each planning year, given the capital targets and expected capital ratio, in order to ascertain that the capital planning ensures compliance with the risk capacity throughout the years of the plan. The Bank also examines the effect of a moderate stress scenario, primarily consisting of changes in the financial markets, including changes in interest rates, spreads, exchange rates, and more, on the capital-adequacy ratio, in order to measure and limit the potential erosion of the capital-adequacy ratio. In liquidity management, the Bank examines internal and regulatory liquidity scenarios.

#### **B.5. Severity of risk factors**

Pursuant to the directive of the Bank of Israel, the principal risk factors to which the Group is exposed have been mapped. The risk factors and the Board of Management's estimates regarding the severity of the risk of each factor are listed in the following table. The scale for levels of severity of the risk factors is determined with reference to the risk appetite defined by the Bank. This scale consists of five levels of severity for each risk factor. Quantitative metrics have been established for three of the levels (low, medium, and high):

- **Low severity level** – The damage to average annual profit in the years of the crisis due to an extreme event would be smaller than the average annual profit before tax in the ordinary course of business, so that there would be no damage to the Tier 1 capital ratio relative to the point of origin; or the annual damage to profit in at least one of the years of the crisis due to an extreme event would not exceed 150% of the average annual profit before tax in the ordinary course of business.
- **Medium severity level** – The damage to average annual profit in the years of the crisis due to an extreme event would be greater than the average annual profit before tax during the ordinary course of business, and would therefore cause a decrease in the common equity Tier 1 capital ratio of the Bank relative to the point of origin, but the common equity Tier 1 capital ratio would not fall below the level of the established risk capacity (6.5%); or the damage to profit in at least one of the years of the crisis due to an extreme event would be greater than 150% of the average annual profit before tax in the ordinary course of business, but lower than 250%.
- **High severity level** – The damage to average annual profit in the years of the crisis due to an extreme event would cause the capital ratio to fall below the level of the risk capacity; or the damage to profit in at least one of the years of the crisis due to an extreme event would exceed 250% of the average annual profit before tax in the ordinary course of business.

The risk level established for each risk factor is the most severe of the level based on the year of the crisis with the maximum loss and the level based on an average of three years of the crisis.

In order to quantify the effect of the risk factors on the Bank's profit and capital ratio, systemic extreme scenarios and single-risk-factor scenarios were examined for most of the risks, and the scenario with the more severe effect was used in the risk-factor table. Note that this quantification refers to the effect on the capital of the Bank. There are possible scenarios that may involve a decrease in profit, or losses, with a non-negligible effect on the profitability of the Bank, but a low effect on capital adequacy, which are therefore classified at a low level of severity. In addition, when the team of experts estimates that the quantitative indicators do not sufficiently express the severity of the risk factor, or when it is not possible to determine the risk level of a particular risk factor using reliable quantitative methods, the opinion of the team of experts is taken into consideration.

Each risk factor listed in the table below was tested in its own right, under an assumption of independence of each risk factor relative to the other risk factors listed in the table. However, for the risk factors "condition of the global economy" and "condition of the Israeli economy" in the table, systemic scenarios were tested to estimate the effect on profit and on the capital ratio of the combination of a number of risk factors. It is emphasized that the risk scenarios simulate a situation in which unexpected damages materialize beyond the expected level of damage events in the regular course of the Group's business.

The Bank also assesses the level of risk using another method, based on expert evaluations of the inherent risk level, the quality of risk management, the effectiveness of controls, and the residual risk. The inherent risk is the aggregate risk inherent in the activity in which the Bank engages, and is defined as the potential loss from this activity. Inherent risk is evaluated from a forward-looking perspective as well as in view of the past, but without taking management and control processes into consideration. In order to estimate the residual risk, taking into account management and control processes, evaluations by content experts from the second line of defense were added to the model, addressing the quality of risk management and the effectiveness of controls.

The combination of estimates using the two methods to obtain an overall assessment of residual risk, presented in the table below on a scale of five levels of severity, was performed as an expert evaluation, reflecting the input of the experts in the various areas, and is subject to all of the qualifications noted with respect to forward-looking information.

Table B-4: Severity of risk factors

	Risk factor	Risk effect
<b>Financial risks</b>		
<b>1.</b>	Credit risk (including counterparty risk)	Medium
<b>1.1.</b>	Of which: risk in respect of the quality of borrowers and/or collateral	Medium
<b>1.2.</b>	Of which: risk in respect of sector concentration	Medium
<b>1.3.</b>	Of which: risk in respect of concentration of borrowers/ borrower groups	Medium
<b>2.</b>	Market risk	Low-Medium
<b>2.1.</b>	Of which: interest-rate risk	Low-Medium
<b>2.2.</b>	Of which: inflation risk/exchange-rate risk	Low
<b>2.3.</b>	Of which: share price and credit spread risk	Low-Medium
<b>3.</b>	Liquidity risk	Low-Medium
<b>Operational and legal risks</b>		
<b>4.</b>	Operational risk*	Medium
<b>4.1.</b>	Of which: cyber risk	Medium
<b>4.2.</b>	Of which: IT risk	Medium
<b>5.</b>	Legal risk	Low
<b>Other risks</b>		
<b>6.</b>	Reputational risk	Low-Medium
<b>7.</b>	Strategic and competitive risk	Medium
<b>8.</b>	Regulatory and legislative risk	Medium
<b>9.</b>	Economic risk – condition of the Israeli economy**	High
<b>10.</b>	Economic risk – condition of the global economy**	High
<b>11.</b>	Compliance risk***	Medium-High

\* The level of operational risk, as well as the level of IT risks included therein, rose to Medium during 2019, taking into account the complex operating environment, in view of both technological and other aspects.

\*\* In light of the coronavirus outbreak and its possible effect on the economic environment, the severity levels of economic risk in Israel and global economic risk have been raised to High.

\*\*\* The level of compliance risk rose to Medium-High during 2019, taking into consideration the increasing strength of regulation and of the enforcement environment, in Israel and worldwide. As a final agreement is formulated with the United States authorities leading to conclusion of the investigation, the effect of compliance risk is expected to decrease to Medium..

### B.6. Top and emerging risks

Based on the recommendations of the FSB (Financial Stability Board), a top risk is defined as a development currently occurring in the business environment of the Bank that may adversely affect the Bank's results over the course of the coming year. By contrast, with respect to an emerging risk, there is greater uncertainty regarding the timing of materialization of the risk as an occurrence with a material effect on the strategy of the Bank.

Risk management at the Bank Group is described extensively in this report.

The Board of Management and Board of Directors of the Bank have discussed the effect of the top and emerging risks described below on the Bank; from time to time, they examine the need to adjust business strategy to such developments.

- **Compliance risk:** Pursuant to Proper Conduct of Banking Business Directive 308, compliance risk also includes risks related to the fairness of the Bank towards its customers, conflicts of interest, the prohibition of money laundering and financing of terrorism, provision of advice to customers, protection of privacy (excluding information-technology aspects), taxation aspects relevant to products or services for customers, or directives of a similar nature. The materialization of this risk on the global level is reflected in the continuing investigations of banks around the world and in the fines imposed on them in connection with the violation of laws or regulations, such as in the areas of assisting tax evasion, the prevention of terrorism financing, money laundering, and investigations of corruption. The Bank Group's business with American customers and the issue of FIFA are under investigation by the authorities in the United States. Over the recent period, the Bank Group and each of the teams addressing the DOJ investigation and teams from the banking regulation agencies have conducted extensive negotiations regarding the terms of the resolutions which, when approved by the American authorities and the Bank Group and as they reach final formulation, will bring the investigations to conclusion. For details, see Notes 25D and 25E to the Financial Statements.
- **Macro-economic environment:** The activity of the Bank is dependent on the business environment, in Israel and globally. The condition of the global economy; significant changes in monetary policies and interest-rate curves; market volatility; changes in prices of financial assets in Israel and worldwide, and in real-estate prices; and the economic, political, and security situation in Israel and in the region have the potential to affect the activity of the Bank. The Bank's multi-annual strategic plan includes certain assumptions regarding the macro-economic environment, taking into consideration the existing risks in the global and Israeli economy, and balances risk and return considerations. For further details, see "Economic and financial review" in the Report of the Board of Directors and Board of Management.  
**The coronavirus outbreak** may cause significant change in the macro-economic environment, as noted in the economic review in the Report of the Board of Directors and Board of Management, and as detailed in the section "Additional matters," below.
- **Regulatory environment in Israel and overseas:** International regulatory reforms have implications for the business of the Bank, in Israel and globally. In Israel, several regulatory initiatives have been formulated over the last few years, with the primary aim of increasing competition in the banking system in Israel; several additional regulatory initiatives are in the process of being generated. The regulatory initiatives and trends, and specifically the separation of the Bank from its credit-card companies and the significant changes in this area of activity, as well as the mobility of bank accounts and open API, may affect the banking system in general and the Bank in particular. At this stage, it is too early to estimate and assess the effect thereof on the Bank. For details regarding the Law for Increasing Competition and Reducing Concentration in the Banking Market in Israel, 2017, see Note 35 to the Financial Statements.
- **Information security and cyber incident risk:** Increasing cyber threats to financial institutions have led to the channeling of resources in the banking industry to cope with this risk. The Bank applies frequent controls in all channels in order to prevent harmful penetration, activation of malicious software, and information leakage. The lines of defense consist of a large number of advanced information-security systems, deployed internally in the Bank's network as well as externally as a perimeter defense.

- **Competitive and strategic risk:** New competition from big tech companies (Apple, Google, Facebook, Amazon, and others) and fintech companies, alongside the entry of new technologies, changes in customer behavior, and new business models in the financial sphere, may significantly affect the banking system, in Israel and worldwide, in the medium to long term. Concurrently, regulatory and competitive changes in the domestic arena, with an emphasis on measures aimed at increasing competition in the retail credit market, such as the Credit Data Law, which took effect on April 12, 2019, bank account switching, and open API, may affect the business results of the Bank. The Bank has formulated a strategic plan for 2020-2022, encompassing action in the areas of innovation, technology, the structure of its operations, and more, in order to respond to all such threats.

For details regarding legal proceedings, see Note 25 to the Financial Statements.

For details regarding material regulatory initiatives with an effect on the activity of the Bank during the reported period, see Note 35 to the Financial Statements.

## **B.7. Additional matters**

### **Coronavirus outbreak**

The spread of the coronavirus and its impact on developments in the markets have adverse effects on the financial results of the Bank, as detailed below.

The coronavirus has spread rapidly around the world in recent weeks; in response, many governments, including the government of Israel, have taken defensive measures such as restriction of international travel, quarantines, reduction of congregation and movement, and restrictions of the activity of businesses. The spread of the virus and the defensive measures have caused economic damage and negative trends in global capital markets and in the local market.

These events may lead to material worsening of the activity of the Israeli economy, to which the activity of the Bank is exposed; the events have, and are expected to have, implications for the Bank's business, including due to an increase in credit risk and liquidity difficulties of borrowers, and due to the deceleration of economic activity. The reduction of short-term interest rates by the central banks – the rate cuts already performed as well as probable additional reductions – also has the effect of reducing the future financing income and interest income of the Bank in the near term. The scope of these effects depends, among other factors, on the extent of the spread of the virus, the response of the governments and the markets, and the duration of the event; it is therefore not possible yet to estimate or quantify the future impact.

In view of the effects of these events, the Bank recorded an addition to the provision for credit losses in this quarter, which has a negative effect on net profit (after tax) of approximately NIS 450 million. Most of the addition is in respect of a number of borrowers connected to sectors significantly hurt by the crisis or its consequences up to this point, in the various markets (primarily energy, aviation, and tourism). For details regarding the exposure and credit risk by economic sector, see the section "Credit," below.



Events over the last few weeks in the capital markets, and possible additional developments, including decreases in prices of tradable assets, reduction of the Federal Reserve interest rate, change in global and local interest-rate curves, changes in currency exchange rates, and reduction of economic activity, may have a material adverse effect on the financial results of the Bank in 2020. For details regarding the impairment of tradable securities near the reporting date, and regarding the mitigating effects on the capital of the Bank of the decrease in actuarial liabilities for employee benefits due to an increase in the discount rate, see Note 36 to the Financial Statements. The Bank is taking measures to cope with the effects of the coronavirus, with due attention to the regulatory directives on this matter, and preparing on several levels, including continued service to its customers at its branches and other channels, and maintaining business continuity in various scenarios. In order to protect the safety of its employees, work at the Bank has been reduced in accordance with the regulatory directives.

#### **Discontinuation of publication of the LIBOR interest rates**

Beginning at the end of 2021, the global financial system is expected to discontinue publication of the IBOR interest rates and cease using these rates. The IBOR rates serve as the basis for calculation of interest rates applicable to financial products with floating rates in principal foreign currencies, or linked to these currencies. Within the intention to establish alternative benchmark rates for the relevant currencies, global institutions such as the ISDA (International Swaps and Derivatives Association) and the ARRC (Alternative Reference Rate Committee) are formulating alternatives to these interest rates, new legal language, and proposals for substitution mechanisms. The anticipated change will affect the entire banking industry, globally and in Israel. Accordingly, a steering committee has been established at the Bank, to follow the international publications, examine the impact of the substitution on the activity of the Bank, and update the Board of Management and Board of Directors periodically. Within the activity of the committee, the various products at the Bank that are based on these interest rates have been mapped; changes have been made to legal documents; and training has been provided to Bank employees. In late January 2020, letters were sent to customers of the Bank describing the future change, according to the information in the possession of the Bank at that time. In light of the uncertainty concerning the continued execution of this process, which is influenced, as noted, by international decisions, the Bank is unable to perform quantitative evaluations regarding the effect of the substitution of the interest rates. The Bank will continue to monitor the international publications and to act with the aim of reducing the risks arising from the interest-rate substitution process. For further details, see Note 1F to the Financial Statements.

## B.8. Review of weighted risk-adjusted assets

Table B-5: Review of weighted risk-adjusted assets

	Risk-weighted assets		Minimum capital requirements*
	December 31, 2019	September 30, 2019	December 31, 2019
NIS millions			
1 Credit risk (standardized approach)**	<b>289,023</b>	285,673	<b>39,798</b>
6 Counterparty credit risk (standardized approach)	<b>5,462</b>	5,872	<b>752</b>
10 Credit valuation adjustment (CVA)	<b>2,713</b>	2,803	<b>374</b>
15 Settlement risk	-	-	-
16 Securitization exposures (standardized approach)	<b>28</b>	33	<b>4</b>
25 Amounts below deduction thresholds (subject to 250% risk weight)	<b>12,077</b>	11,813	<b>1,663</b>
Total credit risk	<b>309,303</b>	306,194	<b>42,591</b>
20 Market risk (standardized approach)	<b>3,528</b>	3,044	<b>486</b>
24 Operational risk	<b>23,556</b>	23,684	<b>3,244</b>
27 Total	<b>336,387</b>	332,922	<b>46,321</b>

\* Capital requirements according to the minimum required total capital ratio, plus a capital requirement reflecting 1% of the balance of housing loans at the reporting date, at a rate of 13.77%.

\*\* Credit risk does not include counterparty credit risk, adjustment in respect of credit risk, settlement risk, securitization exposures, and amounts below the deduction thresholds.

**Table B-6: Change in risk-weighted assets during the period**

	For the year ended December 31, 2019			
	Credit risk	Market risk	Operational risk	Total risk-adjusted assets
NIS millions				
Balance as at December 31, 2018	<b>312,900</b>	<b>3,429</b>	<b>24,268</b>	<b>340,597</b>
Changes in portfolio volume <sup>(1)</sup>	<b>6,347</b>	<b>99</b>	<b>(712)</b>	<b>5,734</b>
Changes in portfolio quality <sup>(2)</sup>	<b>14</b>	-	-	<b>14</b>
Changes in methodology and policy <sup>(3)</sup>	<b>(99)</b>	-	-	<b>(99)</b>
Sales <sup>(4)</sup>	<b>(7,782)</b>	-	-	<b>(7,782)</b>
Effect of changes in exchange rates	<b>(2,077)</b>	-	-	<b>(2,077)</b>
Balance as at December 31, 2019	<b>309,303</b>	<b>3,528</b>	<b>23,556</b>	<b>336,387</b>

	For the year ended December 31, 2018			
	Credit risk	Market risk	Operational risk	Total risk-adjusted assets
NIS millions				
Balance as at December 31, 2017	295,986	5,114	23,672	324,772
Changes in portfolio volume <sup>(1)</sup>	18,874	(1,685)	596	17,785
Changes in portfolio quality <sup>(2)</sup>	262	-	-	262
Changes in methodology and policy <sup>(3)</sup>	(4,007)	-	-	(4,007)
Sales <sup>(4)</sup>	(326)	-	-	(326)
Effect of changes in exchange rates	2,111	-	-	2,111
Balance as at December 31, 2018	312,900	3,429	24,268	340,597

(1) The category "changes in portfolio volume" refers to change arising from changes in total balances, exposures, or income, as relevant, and does not include changes resulting from change in the quality of the portfolio.

(2) The category "changes in portfolio quality" mainly refers to changes in the risk weight of transactions and customers resulting from changes in credit rating or classification.

(3) The category "changes in methodology and policy" mainly refers to the effect of changes in regulatory directives (see section C2(d), "Implementation of regulatory directives with an effect on measurement and capital-adequacy matters," below) and changes in methodologies.

(4) The category "sales" includes the effect of sales of loans.

For details regarding the connections between the financial statements and supervisory exposures, see Addendum A, below.

## C. Capital and leverage

### C.1. Composition of capital

Table C-1: Composition of supervisory capital

	<b>December 31, 2019</b>	December 31, 2018	References to the supervisory balance sheet	
	NIS millions			
<b>Common equity Tier 1 capital</b>				
<b>Common equity Tier 1 capital – instruments and retained earnings</b>				
1	Ordinary share capital issued by the banking corporation and premium on ordinary shares included in common equity Tier 1 capital	<b>8,167</b>	8,135	1+2
2	Retained earnings, including dividends proposed or declared after the balance sheet date	<b>31,346</b>	30,565	3
3	Accumulated other comprehensive income and disclosed retained earnings	<b>(1,332)</b>	(1,156)	4A+4B
5	Ordinary shares issued by subsidiaries of the banking corporation which were consolidated and are held by a third party (non-controlling interests)	<b>15</b>	40	5
6	Common equity Tier 1 capital before supervisory adjustments and deductions	<b>38,196</b>	37,584	
<b>Common equity Tier 1 capital – supervisory adjustments and deductions</b>				
9	Other intangible assets, excluding mortgage service rights, net of deferred taxes payable	<b>7</b>	-	12+11
10	Deferred tax assets, realization of which depends on future profitability of the banking corporation, excluding deferred tax assets arising from timing differences	<b>50</b>	34	6
11	Total accumulated other comprehensive income in respect of cash-flow hedges of items not presented in the balance sheet at fair value	<b>(1)</b>	(1)	7
14	Unrealized profits and losses resulting from changes in the fair value of liabilities due to changes in the own credit risk of the banking corporation	<b>2</b>	4	8
16	Investment in own ordinary shares held directly or indirectly (including commitments to purchase shares under contractual agreements)	-	-	
21	Deferred tax assets arising from timing differences in amounts exceeding 10% of common equity Tier 1 capital	-	-	
26	Additional supervisory adjustments and deductions established by the Banking Supervision Department	<b>(657)</b>	(457)	
26C	Of which: additional supervisory adjustments to common equity Tier 1 capital	<b>(657)</b>	(457)	
26C	Of which: in respect of the efficiency plans	<b>(657)</b>	(457)	
26C	Of which: in respect of wage tax	-	-	
28	Total supervisory adjustments and deductions in common equity Tier 1 capital	<b>(599)</b>	(420)	
29	Common equity Tier 1 capital	<b>38,795</b>	38,004	

Table C-1: Composition of supervisory capital (continued)

	<b>December 31, 2019</b>	December 31, 2018	References to the supervisory balance sheet
	NIS millions		
<b>Additional Tier 1 capital</b>			
<b>Additional Tier 1 capital – instruments</b>			
33			
	Additional Tier 1 capital instruments issued by the corporation, which are eligible for inclusion in supervisory capital during the transitional period		
	<b>733</b>	977	9
36			
	Additional Tier 1 capital before deductions		
	<b>733</b>	977	
<b>Additional Tier 1 capital – deductions</b>			
43			
	Total deductions from additional Tier 1 capital		
	-	-	
44			
	Additional Tier 1 capital		
	<b>733</b>	977	
45			
	Tier 1 capital		
	<b>39,528</b>	38,981	
<b>Tier 2 capital</b>			
<b>Tier 2 capital – instruments and provisions</b>			
47			
	Tier 2 capital instruments issued by the corporation, which are eligible for inclusion in supervisory capital during the transitional period		
	<b>30</b>	57	9
48			
	Tier 2 capital instruments issued by subsidiaries of the banking corporation to third-party investors		
	<b>5,899</b>	6,074	
49			
	Of which: Tier 2 capital instruments issued by subsidiaries of the banking corporation and held by third-party investors, which are gradually deducted from Tier 2 capital		
	<b>3,005</b>	4,251	9
50			
	Collective allowances for credit losses before the effect of related tax		
	<b>3,778</b>	3,911	10
51			
	Tier 2 capital before deductions		
	<b>9,707</b>	10,042	
<b>Tier 2 capital – deductions</b>			
57			
	Total supervisory adjustments to Tier 2 capital		
	-	-	
58			
	Tier 2 capital		
	<b>9,707</b>	10,042	
59			
	Total capital		
	<b>49,235</b>	49,023	
<b>Risk-weighted assets</b>			
	Total risk-weighted assets according to the requirements prior to the adoption of Directive 202, in accordance with Basel 3		
	<b>335,948</b>	339,973	
	Of which: credit risk assets		
	<b>308,864</b>	312,276	
	Of which: market risk assets		
	<b>3,528</b>	3,429	
	Of which: operational risk assets		
	<b>23,556</b>	24,268	
60			
	Total risk-weighted assets		
	<b>336,387</b>	340,597	

Table C-1: Composition of supervisory capital (continued)

	<b>December 31, 2019</b>	December 31, 2018	References to the supervisory balance sheet
	NIS millions/percent		
<b>Capital ratios and capital preservation cushions</b>			
61	Common equity Tier 1 capital	<b>11.53%</b>	11.16%
62	Tier 1 capital	<b>11.75%</b>	11.44%
63	Total capital	<b>14.64%</b>	14.39%
<b>Minimum requirements established by the Banking Supervision Department</b>			
69	The required minimum common equity Tier 1 capital ratio is 10%. A capital requirement at a rate representing 1% of the balance of housing loans at the dates of the financial statements was added to this ratio.	<b>10.27%</b>	10.24%
71	The required minimum total capital ratio is 13.5%. A capital requirement at a rate representing 1% of the balance of housing loans at the dates of the financial statements was added to this ratio.	<b>13.77%</b>	13.74%
<b>Amounts below the deduction threshold (before risk weighting)</b>			
72	Investments in the capital of financial corporations which do not exceed 10% of the ordinary share capital issued by the financial corporation and which are below the deduction threshold	<b>1,443</b>	1,802
73	Investments in the capital of financial corporations which exceed 10% of the ordinary share capital issued by the financial corporation and which are below the deduction threshold	<b>1,378</b>	656
75	Deferred tax assets arising from timing differences, below the deduction threshold	<b>3,806</b>	3,645
<b>Ceiling for inclusion of provisions in Tier 2</b>			
76	Provision qualifying for inclusion in Tier 2, with reference to exposures under the standardized approach, before application of the ceiling	<b>3,778</b>	3,919
77	Ceiling for inclusion of provision in Tier 2 under the standardized approach	<b>3,866</b>	3,911
<b>Capital instruments not qualifying as supervisory capital, which are subject to the transitional directives</b>			
82	Present ceiling amount for instruments included in additional Tier 1 capital subject to the transitional directives	<b>733</b>	977
83	Amount deducted from additional Tier 1 capital due to the ceiling	<b>809</b>	887
84	Present ceiling amount for instruments included in Tier 2 capital subject to the transitional directives	<b>4,577</b>	6,102
85	Amount deducted from Tier 2 capital due to the ceiling	-	-

For details regarding the connection between the balance sheet and the components of supervisory capital, see Addendum A, below.

Table C-2: Statement of changes in components of supervisory capital

	For the year ended December 31, 2019				
	Common equity Tier 1 capital	Additional Tier 1 capital	Total Tier 1 capital	Tier 2 capital	Total capital
	NIS millions				
Balance as at December 31, 2018	<b>38,004</b>	<b>977</b>	<b>38,981</b>	<b>10,042</b>	<b>49,023</b>
<b>Changes in capital components</b>					
Ordinary share capital	<b>1</b>	-	<b>1</b>	-	<b>1</b>
Premium on ordinary shares	<b>31</b>	-	<b>31</b>	-	<b>31</b>
Net profit for the period attributed to shareholders of the Bank	<b>1,799</b>	-	<b>1,799</b>	-	<b>1,799</b>
Dividends	<b>(1,000)</b>	-	<b>(1,000)</b>	-	<b>(1,000)</b>
Unrealized profits from adjustments of securities available for sale to fair value	<b>410</b>	-	<b>410</b>	-	<b>410</b>
Benefit due to share-based payment transactions	<b>(18)</b>	-	<b>(18)</b>	-	<b>(18)</b>
Effect of adoption of accounting rules concerning employee benefits, included in other comprehensive income	<b>(568)</b>	-	<b>(568)</b>	-	<b>(568)</b>
Effect of the efficiency plans, included in other comprehensive income	<b>352</b>	-	<b>352</b>	-	<b>352</b>
Adjustments in respect of the effect of the efficiency plans	<b>(152)</b>	-	<b>(152)</b>	-	<b>(152)</b>
Non-controlling interests in share capital of consolidated subsidiaries	<b>(25)</b>	-	<b>(25)</b>	-	<b>(25)</b>
Cumulative effect of initial implementation of US GAAP	<b>(18)</b>	-	<b>(18)</b>	-	<b>(18)</b>
Total change before supervisory adjustments and deductions	<b>812</b>	-	<b>812</b>	-	<b>812</b>
<b>Change due to the effect of supervisory adjustments and deductions</b>					
Goodwill and intangible assets	<b>7</b>	-	<b>7</b>	-	<b>7</b>
Deferred taxes, realization of which is based on the future profitability of the banking corporation	<b>16</b>	-	<b>16</b>	-	<b>16</b>
Unrealized gains and losses resulting from changes in the fair value of liabilities due to changes in the own credit risk of the Bank	<b>(2)</b>	-	<b>(2)</b>	-	<b>(2)</b>
Total change in supervisory adjustments and deductions	<b>21</b>	-	<b>21</b>	-	<b>21</b>
Decrease in supervisory capital instruments	-	<b>(244)</b>	<b>(244)</b>	<b>(1,267)</b>	<b>(1,511)</b>
Capital instruments issued	-	-	-	<b>1,065</b>	<b>1,065</b>
Change in collective allowances for credit losses before the effect of related tax	-	-	-	<b>133</b>	<b>133</b>
Balance as at December 31, 2019	<b>38,795</b>	<b>733</b>	<b>39,528</b>	<b>9,707</b>	<b>49,235</b>

**Table C-2: Statement of changes in components of supervisory capital (continued)**

	For the year ended December 31, 2018				
	Common equity Tier 1 capital	Additional Tier 1 capital	Total Tier 1 capital	Tier 2 capital	Total capital
	NIS millions				
Balance as at December 31, 2017	36,582	1,221	37,803	9,728	47,531
<b>Changes in capital components</b>					
Ordinary share capital	1	-	1	-	1
Premium on ordinary shares	10	-	10	-	10
Net profit for the period attributed to shareholders of the Bank	2,595	-	2,595	-	2,595
Dividends	(496)	-	(496)	-	(496)
Effect of adoption of accounting rules concerning employee benefits, included in retained earnings	1	-	1	-	1
Unrealized losses from adjustments of securities available for sale to fair value	(673)	-	(673)	-	(673)
Translation adjustments of autonomous affiliated units overseas	16	-	16	-	16
Benefit due to share-based payment transactions	(21)	-	(21)	-	(21)
Effect of adoption of accounting rules concerning employee benefits, included in other comprehensive income	153	-	153	-	153
Adjustments in respect of the effect of the efficiency plan	(153)	-	(153)	-	(153)
Non-controlling interests in share capital of consolidated subsidiaries	(30)	-	(30)	-	(30)
Total change before supervisory adjustments and deductions	1,403	-	1,403	-	1,403
<b>Change due to the effect of supervisory adjustments and deductions</b>					
Deferred taxes, realization of which is based on the future profitability of the banking corporation	4	-	4	-	4
Unrealized gains and losses resulting from changes in the fair value of liabilities due to changes in the own credit risk of the Bank	(3)	-	(3)	-	(3)
Self investment in ordinary shares (held directly or indirectly)	(20)	-	(20)	-	(20)
Total change in supervisory adjustments and deductions	(19)	-	(19)	-	(19)
Decrease in supervisory capital instruments	-	(244)	(244)	(1,715)	(1,959)
Capital instruments issued	-	-	-	1,818	1,818
Change in collective allowances for credit losses before the effect of related tax	-	-	-	211	211
Balance as at December 31, 2018	38,004	977	38,981	10,042	49,023



## **C.2. Capital adequacy**

### **C.2.a. The Bank's approach to capital-adequacy assessment**

The Bank applies the capital measurement and adequacy directives based on the Basel directives, as published by the Banking Supervision Department and as integrated into Proper Conduct of Banking Business Directives 201-211 and the file of questions and answers.

The capital measurement and adequacy directives are based on three pillars:

- Pillar 1 – Includes the manner of calculation of the supervisory minimum capital requirements in respect of credit risks, operational risk, and market risk.
- Pillar 2 – Sets forth internal processes (the ICAAP – Internal Capital Adequacy Assessment Process) used by banks to assess the required capital in respect of risks in aggregate, including those not covered by Pillar 1 (such as credit concentration, interest-rate risk in the banking book, liquidity risks, settlement risks, and strategic risks), as well as a review process performed by the Banking Supervision Department.
- Pillar 3 – Market discipline; establishes the type and extent of information to be presented in reporting to the public on the risks to which banks are exposed. This pillar requires the disclosure of both quantitative and qualitative information, in order to enable the market to estimate the extent of the bank's exposure to risk factors.

### **C.2.b. Capital-adequacy target**

Pursuant to the circular of the Banking Supervision Department concerning minimum capital ratios, the Bank, as a banking corporation of significant importance (a banking corporation whose total balance sheet assets on a consolidated basis constitute at least 20% of the total balance sheet assets of the banking system in Israel), is required to maintain a minimum common equity Tier 1 capital ratio of 10% and a minimum total capital ratio of 13.5%. A capital requirement at a rate representing 1% of the balance of housing loans at the dates of the financial statements was added to the minimum capital ratios.

On March 1, 2020, the Banking Supervision Department issued a circular on the subject, "Capital measurement and adequacy – introduction, application, and calculation of requirements and leverage ratio," updating Proper Conduct of Banking Business Directives 201 and 218. Pursuant to the circular, a banking corporation of significant importance is a banking corporation whose total balance sheet assets on a consolidated basis are equal to or greater than 24% of the total balance sheet assets of the banking system.

The circular is not expected to change the status of the Bank as a banking corporation of significant importance.

The minimum common equity Tier 1 capital ratio and the minimum total capital ratio of the Bank (which is a banking corporation of significant importance) required by the Banking Supervision Department, on a consolidated basis, as at December 31, 2019, stand at 10.27% and 13.77%, respectively.

Pursuant to a resolution of the Board of Directors of the Bank, the target common equity Tier 1 capital ratio is 10.75%.

### **C.2.c. Planning and management of capital by the Bank**

Capital planning is an annual process with a rolling planning horizon of three years. Capital management is performed routinely, as an integral part of the Bank's strategic and financial plan. Capital planning at the Bank is based on the work plan of the Bank and on regulatory directives, which are translated into risk-adjusted assets and changes in the various tiers of capital, while maintaining safety margins. Various sensitivity tests are applied within the planning of capital and capital ratios. The Bank also routinely monitors actual results as compared to planning, and the gaps between results and planning, and, as necessary, examines the actions needed in order to maintain the established capital targets. The policy of the Bank is to maintain capital adequacy at a level higher than the minimum ratio required by the Banking Supervision Department, and not lower than the level of capital adequacy required to cover the risks, as assessed in the Internal Capital Adequacy Assessment Process (ICAAP). Within the ICAAP, the Bank examines the effect of stress scenarios on capital-adequacy ratios; accordingly, a plan is in place for a return to regulatory capital adequacy in the case of a such a stress event.

Effective capital-management ensures:

- Efficient allocation of capital during the ordinary course of business of the Bank.
- A robust capital base serving as a cushion against unexpected risks to which the Bank is exposed, supporting business strategy, and allowing compliance at all times with the regulatory minimum capital requirement. For this purpose, the Bank takes into account not only the current status of capital but also future developments in the capital base and in capital requirements.

In order to maintain a thorough and effective capital-management process, a specialized department manages capital at the Bank, reporting to the CFO. The department oversees routine administration and control of all matters related to the management and planning of capital at the Bank, including the following matters: capital planning, control over capital adequacy and compliance with risk-adjusted asset objectives, contingency plans for extreme scenarios, and proactive capital management according to needs. For that purpose, the department is responsible for monitoring developments in regulation in connection with capital management, in Israel and globally, and advanced capital-management methods at banks worldwide. The department is also responsible for the implementation of methodologies for the measurement of economic capital and economic profitability. These methodologies are used to make decisions according to risk-adjusted returns at the various levels of management at the Bank.

#### **Issuance of subordinated notes with a loss-absorption mechanism**

In April 2019, the Bank issued a series of subordinated notes through its subsidiary Hapoalim Hanpakot, in the amount of approximately NIS 1 billion, which constitute part of the Tier 2 capital of the Bank. For details regarding the issue, see Note 24K to the Financial Statements.

#### **Early redemption of capital notes in Tier 1 capital**

The Bank carried out early redemption of the subordinated notes in Series B and of the subordinated notes in Series D in February 2019 and September 2019, respectively, in consideration for a total of NIS 582 million and NIS 349 million, respectively.

## **Dividends**

Before the date of approval of the financial statements as at June 30, 2018, the Banking Supervision Department notified the Bank that in light of the substantive uncertainty with respect to the investigation of the United States authorities, and for reasons of caution and conservatism, the Banking Supervision Department was of the opinion that, at that time, dividends from ongoing earnings should not be distributed by the Bank. Accordingly, for reasons of conservatism and in coordination with the Bank of Israel, beginning in the second quarter of 2018, the Board of Directors of the Bank has not declared the distribution of dividends from ongoing earnings, with no change to the Bank's dividend distribution policy. See also Note 24 to the Annual Financial Statements for 2019.

As a result of the sale of approximately 65% of the shares of Isracard in the second quarter of 2019 (see Note 15E to the Financial Statements), the Bank accumulated additional capital surplus in the amount of approximately NIS 1.3 billion (of which approximately NIS 0.3 billion is in respect of a decrease in the operational risk of Isracard, which will be recognized gradually, over a period of three years). With respect to this capital surplus, in September 2019 the Board of Directors of the Bank declared the distribution of dividends in the amount of NIS 1 billion, paid in October 2019.

The remaining holdings of the Bank in the shares of Isracard (approximately 33% of the issued and paid-up capital of Isracard) were distributed as a dividend in kind to the shareholders of the Bank on March 9, 2020.

## **C.2.d. Implementation of regulatory directives with an effect on measurement and capital-adequacy matters**

### **Sale of Isracard**

In accordance with the requirements of the Law for Increasing Competition and Reducing Concentration in the Banking Market in Israel (Legislative Amendments), 2017 (the "Law for Increasing Competition"), and the publication of the prospectus for a public sale offering of the shares of Isracard, the Bank sold approximately 65.2% of the capital of Isracard in a public sale offering on April 8, 2019. The sale led to an increase of approximately 0.3% in the common equity Tier 1 capital ratio and in the total capital ratio. For details regarding the holdings of the Bank in the Isracard Group, see Section 2.6.1, "Principal companies," in the Report of the Board of Directors and Board of Management.

On February 2, 2020, the Board of Directors of the Bank approved distribution of the remaining holdings in the shares of Isracard as a dividend in kind to the shareholders of the Bank. The distribution was performed on March 9, 2020. The Bank thereby completed its separation from the Isracard Group, as required by the Law for Increasing Competition. The share distribution was performed according to the value of the shares on the stock exchange at the date of the distribution. The effect of the distribution of the dividend in kind is a decrease of approximately 0.2% in the common equity Tier 1 capital ratio and in the total capital ratio.

### **Improving operational efficiency**

In January 2016, the Banking Supervision Department issued a letter on the subject, "Improving the operational efficiency of the banking system in Israel" (the "Efficiency Directive"). Pursuant to the Efficiency Directive, the boards of directors of banking corporations shall formulate a multi-year plan to improve efficiency. Banking corporations that meet the conditions established in the directive will be granted a relief allowing them to spread the effects of the plan over a period of up to five years in a straight line, for the purposes of the calculation of capital-adequacy ratios and of the leverage ratio.

Further to the Efficiency Directive, in June 2017, the Banking Supervision Department issued a letter entitled, "Improving the operational efficiency of the banking system in Israel – efficiency in the area of real estate," which encourages banking corporations to also examine, in addition to improved efficiency in personnel expenses, the possibility of reducing real-estate and maintenance costs of headquarters and management units, including through a reexamination of the geographical location of such units ("Real-Estate Efficiency"). In order to encourage the implementation of a plan for Real-Estate Efficiency, the Banking Supervision Department will approve reliefs for the banks in the area of capital adequacy.

In a letter dated December 16, 2019, the Banking Supervision Department extended the period for implementation of the efficiency plan until December 31, 2021.

In October 2016, the Board of Directors of the Bank approved an efficiency plan at an estimated cost in the amount of NIS 762 million, net of tax effect, which was allocated to capital. The plan is being allocated in equal installments over five years, beginning in 2017, for the purpose of the calculation of capital-adequacy ratios and the leverage ratio.

In January 2020, the Board of Directors of the Bank approved an efficiency plan at an estimated cost in the amount of NIS 352 million, net of tax effect, which was allocated to capital. The plan is being allocated in equal installments over five years, beginning in 2020, for the purpose of the calculation of capital-adequacy ratios and the leverage ratio.

The effect of the reliefs in respect of the efficiency plans on the ratio of common equity Tier 1 capital to risk components is estimated at approximately 0.22% as at December 31, 2019.

#### **The subsidiary of the Bank in Turkey**

In January 2019, a letter was received from the Bank of Israel concerning the subsidiary of the Bank in Turkey, Bank Pozitif. In the letter, the Bank of Israel stated that the activity of the Bank in Turkey exposes it to significant risks, and therefore, until the realization of the full holdings of the Bank in Bank Pozitif, the Bank is required to increase the risk weighting rates of risk-adjusted assets in respect of the activity of Bank Pozitif, in the calculation of the consolidated capital ratio only, as follows:

- Beginning January 1, 2020, risk-adjusted assets in respect of the activity of Bank Pozitif will be weighted at a rate of at least 300%.
- Beginning January 1, 2021, risk-adjusted assets in respect of the activity of Bank Pozitif will be weighted at a rate of at least 600%.

The effect of this instruction on the common equity Tier 1 capital ratio, based on data as at December 31, 2019, is a decrease of approximately 0.03%, under the assumption of weighting of the risk-adjusted assets at 300%, and a decrease of approximately 0.09%, under the assumption of weighting of the risk-adjusted assets at 600%. Within the strategic plan, a decision was made to gradually reduce the credit portfolio at Pozitif.

The Bank has commenced activities towards selling its full holdings in Bank Pozitif (for further details, see the section "Principal companies" in the Report of the Board of Directors and Board of Management).

#### **Leases**

The effect of the implementation of the new accounting standard concerning leases, implemented as of January 1, 2020, is a decrease of approximately 0.04% in the common equity Tier 1 capital ratio and a decrease of approximately 0.05% in the total capital ratio. For further details, see Note 1F to the Financial Statements.

### C.2.e. Basel 3 directives

The Basel 3 directives took effect on January 1, 2014. Implementation is gradual, in accordance with the transitional directives established in Proper Conduct of Banking Business Directive 299, "Capital Measurement and Adequacy – Supervisory Capital – Transitional Directives." In accordance with the transitional directives, capital instruments that no longer qualify as supervisory capital were recognized as of January 1, 2014, up to a ceiling of 80% of their balance in the supervisory capital as at December 31, 2013; this ceiling is being lowered by an additional 10% in each subsequent year, until January 1, 2022. Accordingly, the ceiling for instruments qualifying as supervisory capital was 40% and 30%, respectively, in 2018 and 2019.

### C.3. Leverage ratio

The Bank applies Proper Conduct of Banking Business Directive 218, "Leverage Ratio" (hereinafter: the "Directive"). The Directive establishes a simple, transparent, non-risk-based leverage ratio, which serves as a complementary measurement to risk-based capital requirements, and which is designed to limit the accumulation of leverage at banking corporations.

The leverage ratio is expressed as a percentage, and is defined as the ratio of the capital measurement to the exposure measurement. Capital, for the purpose of measurement of the leverage ratio, is Tier 1 capital, as defined in Proper Conduct of Banking Business Directive 202, taking into consideration the transitional arrangements that have been established. The total exposure measurement is the total of balance sheet exposures, exposures to derivatives and to securities financing transactions, and off-balance sheet items.

**Table C-3: Comparison of balance sheet assets to exposure measurement, for the purposes of the leverage ratio**

	<b>December 31, 2019</b>	December 31, 2018
	NIS millions	
Total consolidated assets as per published financial statements	<b>463,688</b>	460,926
Adjustment for investments in banking, financial, insurance, or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	-	-
Adjustment for fiduciary assets recognized in the balance sheet pursuant to the Public Reporting Directives, but excluded from the leverage ratio exposure measurement	-	-
Adjustments for derivative financial instruments	<b>(3,474)</b>	333
Adjustments for securities financing transactions	-	-
Adjustments for off-balance sheet items	<b>56,545</b>	54,608
Other adjustments	<b>2,889</b>	3,113
Exposure for the purposes of the leverage ratio	<b>519,648</b>	518,980

Table C-4: Leverage ratio disclosure

	<b>December 31, 2019</b>	December 31, 2018
	NIS millions/percent	
<b>On-balance sheet exposures</b>		
On-balance sheet items (excluding derivatives and securities financing transactions, but including collateral)	<b>455,020</b>	452,831
Asset amounts deducted in determining Tier 1 capital	<b>(57)</b>	(34)
Total on-balance sheet exposures (excluding derivatives and securities financing transactions)	<b>454,963</b>	452,797
<b>Derivative exposures</b>		
Replacement cost associated with all derivatives transactions	<b>4,008</b>	5,717
Add-on amounts for potential future exposure associated with all derivatives transactions	<b>5,959</b>	6,704
Gross-up for collateral provided in respect of derivatives deducted from balance sheet assets pursuant to the Public Reporting Directives	-	-
Deductions of receivables assets for cash variation margin provided in derivatives transactions	<b>(2,298)</b>	(1,554)
Exempted central counterparty leg of client-cleared trade exposures	-	-
Adjusted effective notional amount of written credit derivatives	-	-
Adjusted effective notional offsets and add-on deductions for written credit derivatives	-	-
Total derivative exposures	<b>7,669</b>	10,867
<b>Securities financing transaction exposures</b>		
Gross securities financing transaction assets (with no recognition of netting), after adjusting for sale accounting transactions	<b>471</b>	708
Netted amounts of cash payables and cash receivables of gross securities financing transaction assets	-	-
Central counterparty credit risk exposure for securities financing transaction assets	-	-
Agent transaction exposures	-	-
Total securities financing transaction exposures	<b>471</b>	708
<b>Other off-balance sheet exposures</b>		
Off-balance sheet exposure at gross notional amount	<b>170,946</b>	185,688
Adjustments for conversion to credit equivalent amounts	<b>(114,401)</b>	(131,080)
Off-balance sheet items	<b>56,545</b>	54,608
<b>Capital and total exposures</b>		
Tier 1 capital*	<b>39,528</b>	38,981
Total exposures*	<b>519,648</b>	518,980
<b>Leverage ratio</b>		
Leverage ratio pursuant to Proper Conduct of Banking Business Directive 218	<b>7.61%</b>	7.51%
Minimum leverage ratio required by the Banking Supervision Department	<b>6.00%</b>	6.00%

\* These data include adjustments in respect of the efficiency plans, in accordance with the directives of the Banking Supervision Department (see the section "Improving operational efficiency," above). The effect of the reliefs in respect of the efficiency plans on the leverage ratio as at December 31, 2019, estimated at approximately 0.13%, is allocated in equal parts over five years, beginning at the inception date thereof.

## D. Credit risk

Credit risk is the risk that a borrower or debtor may default on obligations to the Bank under a credit agreement.

The credit portfolio is a major component of the asset portfolio of the Bank Group; therefore, deterioration in the stability of the various borrowers may have an adverse effect on the Group's asset value and profitability.

Activities that create credit risk include:

- **Balance sheet exposures** – Present liabilities to the Bank, such as credit and mortgages to the public, credit to banks and deposits with banks, credit to governments, investment in bonds (corporate and other), and the balance sheet part (market value) of derivatives and financial instruments.
- **Off-balance sheet exposures** – Potential (unrealized) liabilities to the Bank, such as guarantees, unutilized commitments to grant credit, unutilized credit facilities, and potential liabilities arising from changes in the value of transactions in derivative financial instruments. The credit risk arising from transactions in derivative financial instruments is counterparty risk – the risk that the counterparty to the transaction will default before the final settlement of cash flows in the derivatives transaction. Counterparty risk is addressed separately in Section E, below.

Another risk arising from the portfolio of credit exposures is concentration risk. Concentration risk arises from non-optimal diversification of specific risks in the credit portfolio, such that the credit portfolio is insufficiently diversified across the various risk factors; for example, when the credit portfolio is composed of a small number of borrowers (name concentration) or has a high degree of exposure to a particular economic sector (sector concentration).

In accordance with the reporting directives of the Bank of Israel, this section contains items to which the Basel credit-risk framework applies, pursuant to Proper Conduct of Banking Business Directive 203, unless explicitly noted otherwise.

For details regarding securitization exposures, see Addendum B, below.

### D.1. Management of credit risks

The goal of credit-risk management is to allow the Group to operate, and to ensure that it operates, in accordance with the policies and strategic objectives established and within the risk appetite defined in the area of credit, from the level of the single transaction to the overview of the credit portfolio.

The Bank's credit risk management policy is based on diversification of the credit portfolio and controlled management of risks. Risk diversification is reflected by the distribution of the Bank's credit portfolio among different sectors of the economy, a large number of borrowers, different linkage segments, and different geographical regions overseas. The policy of distributing risks among economic sectors is based on an evaluation of anticipated developments in the different sectors. For this purpose, the Bank conducts industry-level surveys and economic feasibility studies to evaluate the risk and business potential related to activity in the various economic sectors. The Bank's business objectives are determined in accordance with these surveys and studies.

The credit management system monitors customers' credit exposure. Credit review systems identify, monitor, and report to the responsible function and to managers on negative signs related to borrowers. Credit risk management is based on the following principles:

- **Independence** – The principle of independence is an essential element of proper corporate governance, in order to prevent conflicts of interest and create a system of checks and balances. The goal of this principle is to ensure that the information regarding risks reported to management functions, and in particular to senior management and the Board of Directors, is objective and is not influenced by other considerations, in particular considerations of business success and remuneration for such success.
- **Hierarchy of authority** – The Bank has a hierarchy of authority that outlines a sequence of credit authorizations, according to the level of debt of the borrower or group, the risk rating, and problematic debt classifications, allowing control over the process of approving new credit transactions. The hierarchy of authority provides a definition of individual credit approval thresholds and thresholds for transfer to approval committees, as well as the composition of such committees.
- **Comprehensive view of the customer/group** – Management of risk groups encompassing several borrowers who are related in terms of risk, such as a company and its subsidiaries, a married couple, etc. The activity of customers and groups is overseen by a customer manager who is responsible for all activities of that borrower/group. Information systems continuously provide customer managers and their staff with a comprehensive view of the activity of the customer/group, including the level of credit risk, and in accordance with Proper Conduct of Banking Business Directive 313.
- **Credit policies and procedures** – The Board of Directors of the Bank sets forth the credit policy, which is examined and updated routinely, according to changes in the financial markets and in the economy. This policy includes various limits on the credit portfolio, in accordance with the risk appetite of the Bank, including exposure limits by economic sector, country, or financial institution, as a function of the risk level assessed by the Bank. Limits are also imposed on the maximum exposure to a single borrower, according to the credit rating assigned to the borrower, which reflects the borrower's risk level, as well as a maximum limit for a group of borrowers.  
 Credit policy includes the credit risk management policy of the corporation; it formalizes and defines the rules applicable to all parties at the Bank involved with credit risk, and is designed to serve the business goals of Bank Hapoalim, in alignment with its risk policy and risk appetite, and in compliance with regulatory directives.  
 Credit policy documents delineate the aspects relevant to each division (customer type, economic sector, purpose of the loan, etc.), taking risk levels into consideration.  
 Adherence to the guidelines of the credit policy in carrying out business operations allows rational management of credit and credit exposures, and serves as a tool for the management of credit risks.  
 The credit policies and procedures are binding for everyone involved in the area of credit at the Bank. The policy specifies the principles and considerations related to credit granting, the authority to grant credit, prohibitions and limits applied to credit granting, and the internal regulations that establish the Bank's practices and principles in the areas of credit and collateral.  
 The Risk Management Division is responsible for the overall policy of the Bank, and for formulating and coordinating the policies of the business units.



- Controls and risk identification** – The process of reviewing and identifying credit risks is conducted by the three lines of defense. Controls are applied from the level of each individual credit item to the level of the portfolio, in the first and second lines of defense, according to materiality thresholds. The Credit Risk Management Unit leads and coordinates reports to the Board of Management and Board of Directors regarding trends and changes in the credit portfolio, including the level of credit risk in the portfolio, compliance with limits, special events, analysis of concentration, stress scenarios, and presentation of general risk indicators, in Israel and globally.

In the third line of defense, Internal Audit is responsible, among other matters, for reviewing the implementation and effectiveness of risk-management procedures and risk-assessment methodologies, including the implementation of risk management and control policies at the Bank.

The identification of credit risk in existing products is based on risk management, measurement, and control processes at the various levels. The identification of risk in new products relies on the policy for new products, which specifies the processes to be followed for each new product at the Bank in order to identify all risks involved in the product, assess the extent and materiality of such risk, and provide solutions for the measurement, control, and hedging of the risk.

A quarterly and annual process has been designed in order to identify risk concentrations and examine the potential implications of various shocks (financial, political, and others) for the financial robustness of the Bank. This process includes definition, examination, and reporting of the results of stress scenarios, and mapping of the effects on profit and on capital adequacy.
- Credit risk is quantified and measured on several levels:** the level of the individual borrower, borrower groups by area of activity, sectors of the economy, segments of borrowers, products, and the overall portfolio of the Bank and of the Group. Processes for risk quantification and measurement and for the ranking of borrowers and of credit have been developed and implemented for each area of activity and type of credit. These processes combine assessments by credit experts with decision-making processes and advanced statistical models.
- Identification and treatment of borrowers in distress** – The Bank has established procedures for the identification and handling of borrowers who, according to the Bank's evaluation, may default on their obligations to the Bank. The Credit Analysis Department and the Credit Review Department in the Risk Management Division determine, in the opinion they prepare, whether the specific customer should be included in the Bank's watch list, whether the customer's rating requires classification, and whether an allowance for credit losses is necessary. Customers identified for a watch list are discussed as part of the quarterly process of examining the fairness of classifications. These borrowers are supervised and monitored more closely, and the Bank works to reduce its exposure to them by redeeming credit from the borrowers' resources and/or by obtaining additional collateral from them. In certain cases, customers are transferred to a unit specializing in monitoring and restructuring of customers' debt, or to debt collection units. In addition, the Bank regularly reviews the level of credit risk in borrower portfolios on the basis of conservative assumptions, classifies problematic credit risk according to the directives of the Bank of Israel (impaired, substandard, or under special supervision), and records a sufficient allowance for credit losses in respect of the total credit risk at the Bank.

- **Uniform instruction and training** – Employees involved in the area of credit undergo training and instruction on credit, foreign trade, and mortgages. These sessions provide uniform training to all those involved in this area, imparting professional tools and teaching the Bank's policies and principles in the area of credit. Lessons-learned processes based on various credit events are conducted by the units and communicated to the relevant functions, in accordance with the internal regulations of the Bank.
- **Hedging and risk mitigation** – See below.

#### **D.1.a. Structure and organization of the credit risk management function**

Corporate governance for risk management relies on three lines of defense, which are clearly separated from one another.

The approach taken with regard to control of all financial risks at Bank Hapoalim involves identification and assessment of the risks, and control of compliance with the limits established in the various internal regulations, through three lines of defense. The lines of defense are presented below, according to the degree of their independence from the professional function responsible for taking the risk.

##### **First line of defense**

The business units are responsible for identifying, assessing, measuring, monitoring, mitigating, and reporting all risks inherent in products, activities, processes, and systems under their responsibility, as well as for managing an appropriate control environment in the context of risk management.

The first level of the first line of defense includes the units that manage business activity and create credit risks, in Israel and overseas.

Further controls are performed at the second level of the first line of defense, in addition to those carried out in the units that create risk as part of the routine management of their business. This line of defense includes the internal credit and control units within the business divisions and at the bank's overseas offices:

- Credit System Operation Area – Corporate Banking Division;
- Corporate Credit Unit – Corporate Banking Division;
- Retail Credit and Mortgages Area – Retail Banking Division;
- Overseas Credit Review Department – Financial Markets and International Banking Division;
- Banks and Financial Institutions Department – Financial Markets and International Banking Division;
- Exposure and Risk Management System – Financial Markets and International Banking Division.

##### **Second line of defense**

The second line of defense supplements the risk-management activities of the business lines. This function has a reporting structure that is independent of the business lines that generate risk; it is responsible for planning, maintaining, and continually developing the working framework for risk management at the banking corporation.

This line of defense includes:

- The Credit Risk Management Unit, which serves as the independent oversight unit for the management and analysis of credit risks, as part of the second line of defense. The unit reports to the Head of Risk Management and is independent of credit underwriting and approval processes. The unit is responsible for the following areas:
  - Developing methodologies for the identification, control, and management of credit risks.
  - Development of models for the allocation of economic capital in respect of credit risk to the various segments.

- Monitoring credit exposure, the level of credit risk, and compliance with the credit limits of the Group on a monthly and quarterly basis.
- Running stress tests at the level of the Bank and the Group.
- Monitoring, measuring, and managing credit concentration risk.
- Responsibility for the credit policy of the Bank, and leading the processes of writing and updating the policy book.
- Overseeing and reporting to the Board of Management and Board of Directors on the development of the credit portfolio of the business divisions.
- Applying controls and tests of various credit focus areas at the Bank, selected using risk-based samples; credit review activities at the branches and subsidiaries of the Bank overseas.
- Preparing a written opinion addressing credit applications and credit ratings, in which the transaction is analyzed and, as relevant, the judgment exercised by the business function is challenged.
- Examining applications to upgrade ratings.
- Overseeing credit classifications and credit losses.
- Developing methodologies for the calculation of the collective allowance.
- Overseeing reporting on the fairness of classifications and total allowances (collective and individual).
- Developing models to assess credit risk, for rating and underwriting purposes.
- Validation of credit risk rating models, as part of the process of development and performance evaluation, on an annual basis.
- Performing statistical analysis of the portfolio of exposures and of the various segments.

### **Third line of defense**

Internal Audit operates independently and objectively as a third line of defense. Its goals include helping the organization achieve its objectives by recommending risk mitigation through improved controls. Internal Audit operates under laws, regulations, the Banking Rules (Internal Audit), Proper Conduct of Banking Business Directives, professional guidelines of the Institute of Internal Auditors in Israel, guidelines of the Board of Directors' Audit Committee and of the Board of Directors, and management needs.

#### **D.1.b. Credit risk management tools**

Credit exposures are automated, allowing analysis and reporting on various dimensions. Information systems continuously provide a comprehensive view of the activity of the customer/group, including the level of credit risk. The comprehensive view of corporate clients is overseen in accordance with Directive 313 of the Bank of Israel and the internal regulations of the Bank, in order to obtain a full picture of risk groups reflecting ownership relationships and economic dependency relationships. With regard to retail clients, the Bank has defined risk groups in order to also reflect family connections, joint banking activity, etc.

Alerts of events that may indicate worsening of the customer's condition are sent to the desktop of the officer responsible for that customer, based on internal systems and external information.

Credit risk management processes include models for estimating credit risk. Credit risk rating is used to identify changes in the risk level of the borrower and of the portfolio. The Credit Risk Management Unit has developed and implemented models for estimating credit risk, which establish ratings for borrowers and for credit. These models combine assessments by credit experts with advanced statistical models. The rating models are embedded in credit processes at the various divisions and integrated with the processes of making credit decisions, pricing credit, credit policy, identifying customers in distress, and monitoring the quality of the portfolio and of borrowers.

Risk at the level of the overall portfolio of the Group is monitored by the Credit Risk Management Unit. A summary report including credit exposures, risk in the portfolio, trends and changes, special events, and various indicators of risk levels is presented for discussion to the Board of Management of the Bank, the Credit Committee of the Board of Directors, and the Risk Management and Control Committee of the Board of Directors.

Additional credit risk management tools include analyses of concentration of the portfolio of exposures and analysis of extreme scenarios.

## **D.2. Hedges and risk mitigation**

The Bank manages credit collateral through a collateral system that includes conservative safety margins. Within collateral policy, principles and rules have been set forth to determine the value of collateral with respect to its type and the type of credit that it secures, such as: the estimated time range and expenses necessary for realization of the collateral, type of indexation, volatility in the value of the collateral, etc. Procedures have also been defined for the processing of collateral and for monitoring changes in collateral and in the value thereof.

Collateral received by the Bank to secure credit includes financial assets, real-estate assets, and other assets. Against credit granted to companies, the Bank also receives collateral in the form of general floating liens on the companies' assets.

The Bank examines the use of additional risk mitigation tools, as necessary, including loan sales, acquisition of insurance, and use of credit derivatives.

See "Credit risk mitigation," later in this section.

### **D.2.a. Problematic debts and borrowers in distress**

The policy for debt classifications and allowances includes indicators for the identification of customers who, according to the Bank's evaluation, may default on their obligations to the Bank. In addition, the Credit Analysis Department and the Credit Review Department in the Risk Management Division determine, in the opinions they prepare regarding the various borrowers, whether customers who appear to be problematic should be escalated for examination, and whether they should be added to a watch list or their debt should be assigned a classification. Customers escalated for supervision and existing customers on the watch list are examined individually by a designated unit (the Classifications and Allowances Unit in the Risk Management Division) and discussed within the quarterly process of examining the appropriateness of classifications. These borrowers are supervised and monitored more closely, and the Bank works to reduce its exposure to them by redeeming credit from the borrowers' resources and/or by obtaining additional collateral from them. In certain cases, customers are transferred to a unit specializing in monitoring and restructuring of customers' debt, or to debt collection units. In addition, the Bank regularly reviews the level of credit risk in borrower portfolios on the basis of conservative assumptions, classifies problematic credit risk according to the directives of the Bank of Israel and according to the established classification guidelines (under special supervision, substandard, or impaired), and records a sufficient allowance for credit losses in respect of the total credit risk at the Bank.

### **D.2.b. Classification definitions**

#### **Special supervision**

Credit risk under special supervision includes balance sheet and off-balance sheet credit risk with potential weaknesses that should be given special attention by management. If not addressed, these potential weaknesses could result in deterioration of the probability of repayment of the credit or of the status of the Bank as a creditor at a certain future date. Off-balance sheet credit risk is classified as under special supervision if there is at least a possibility that the contingent liability in respect of the off-balance sheet item will be realized. Credit not examined individually (lower than NIS 1 million) is automatically classified as under special supervision when the debt is in arrears of more than 60 days, up to 89 days.

#### **Substandard**

Substandard credit risk includes balance sheet and off-balance sheet credit risk insufficiently protected by the present established value and repayment capability of the borrower or of the pledged collateral, if available. Credit risk assigned this classification must have well-defined weaknesses that jeopardize the realization of repayment of the debt, such that there is a clear possibility that the Bank may incur some degree of loss if the deficiencies are not remedied. Off-balance sheet credit risk is classified as substandard if there is at least a possibility that the contingent liability in respect of the off-balance sheet item will be realized.

Credit not examined individually (lower than NIS 1 million) is automatically classified as substandard when the debt is in arrears of 90 days or more.

### **Impaired debt**

Credit risk is classified as impaired when, based on current information and events, the Bank expects to be unable to collect the full amounts owed to it according to the original contractual terms with the client. The decision to classify credit as impaired is based, among other factors, on the arrears of the debt; an assessment of the financial condition and repayment capability of the borrower; the existence and condition of collateral; and the financial condition of guarantors, if any. In any case, debt assessed on an individual basis is classified as impaired when the principal or interest in respect of the debt is in arrears of 90 days. Impaired debt regains the status of unimpaired debt only when there are no principal or interest components in respect of the debt that are due but have not been paid, and the Bank expects the remaining principal and interest to be repaid in full, in accordance with the terms of the contract.

In exceptional cases, exposures in arrears (over 90 days) are not considered impaired, when the Bank expects the full amount in arrears to be repaid using a cash-flow repayment source within a short period.

### **Definition of debt in arrears**

#### **Debt in arrears**

Debt in which principal or interest have not been paid on time, in reference to the contractual repayment terms. A current account or a current drawing account shall be reported as a debt in arrears when the account remains continuously at a negative balance (in the absence of an approved credit facility), or in deviation from the approved credit facility, for 30 days or more; or if, within the credit facility, amounts are credited to the account that are lower than the negative balance and the credit facility, for a period of 180 days. Loans shall be reported as debt in arrears when the principal or interest have not been paid after 30 days have elapsed from the scheduled date of payment according to the contractual repayment terms of the debt.

#### **Troubled debt restructuring**

Troubled debt restructuring is defined as a debt in respect of which, for economic or legal reasons related to financial difficulties of the borrower, the Bank has granted a concession, in the form of a change in the terms of the debt, in order to ease the burden of cash payments for the borrower in the near term (reduction or postponement of cash payments required of the borrower), or in the form of the acceptance of other assets as partial or full settlement of the debt.

In order to determine whether a debt arrangement executed by the Bank constitutes troubled debt restructuring, the Bank performs a qualitative examination of all of the terms of the arrangement and the circumstances under which it was executed, with the aim of determining whether the debtor is experiencing financial difficulties and whether the Bank granted the debtor a concession within the arrangement. In order to make this determination, the Bank examines the ability to collect from the customer and considers whether there are signs indicating that the borrower is experiencing difficulties at the time of the arrangement, or that there is a reasonable probability that the borrower would fall into financial difficulties without the arrangement.

### **Allowance for credit losses**

#### **Individual allowance**

Debts in respect of which the allowance for credit losses is examined on an individual basis include debts with a total contractual balance (without deducting charge-offs, unrecognized interest, allowance for credit losses, or collateral), aggregated at the level of the customer, of more than NIS 1 million, as well as debts of customers undergoing troubled debt restructuring. An individual allowance for credit losses is considered for every debt classified as impaired.

The individual allowance for credit losses is assessed based on expected future cash flows, discounted at the original interest rate of the debt, or based on realization of the assets of the debtor. When it has been determined that repayment of the debt is contingent upon collateral, or when the Bank determines that seizure of an asset is expected, the individual allowance is assessed based on the fair value of the collateral pledged to secure the debt, following the application of cautious, consistent coefficients that reflect, among other factors, the volatility of the fair value of the collateral, the time that will elapse until the actual date of realization, and the expected costs of selling the collateral.

#### **Collective allowance**

The collective allowance for credit losses is calculated in order to reflect allowances for impairment in respect of credit losses not individually identified inherent in large groups of small debts with similar risk attributes, and in respect of debts examined individually and found to be unimpaired. The allowance for credit losses in respect of debts evaluated on a collective basis is calculated based on average historical loss rates, in a breakdown by economic sector and by problematic and non-problematic credit, in the range of years in the period beginning January 1, 2011 and ending in the quarter preceding the reporting date, with adjustments for significant changes during the current quarter. The Bank also considers relevant ambient factors in determining the rate of the allowance, including trends in the volume of credit in each sector, conditions in the sector, macro-economic data, evaluation of the overall quality of credit in the economic sector, changes in volumes and trends of balances in arrears and impaired balances, and the effects of changes in credit concentration.

In this context, in accordance with the directives of the Supervisor concerning the collective allowance in respect of credit for the economic sector of private individuals, the Bank is required to take into consideration a qualitative adjustment rate of no less than 0.75% of the balance of non-problematic consumer credit. Credit risk arising from receivables in respect of bank credit cards without interest charges was excluded from this calculation.

In accordance with the guidelines of the Banking Supervision Department, the collective allowance required in respect of off-balance sheet credit risk is based on the rates of allowance established for balance sheet credit, taking into consideration the expected rate of realization as credit of the off-balance sheet credit risk. The rate of realization as credit is calculated based on credit conversion coefficients, as detailed in Proper Conduct of Banking Business Directive 203, "Capital Measurement and Adequacy – Credit Risk – The Standardized Approach," with certain adjustments. This allowance is included in the item "other liabilities" in the balance sheet.

#### **Other-than-temporary impairment of bonds**

The examination to determine whether impairment of bonds is other than temporary consists of several stages and principles, in accordance with the policy established at the Bank, main points of which are the following:

A determination of whether the impairment is other than temporary, and of the amount of the impairment:

- Bonds which, at the balance sheet date, the Bank does not intend to hold, or bonds sold after the balance sheet date at less than cost.
- Bonds the value of which has decreased by more than 15% relative to the adjusted cost, when the decrease in value has persisted for more than six months, unless it can be demonstrated that special circumstances prevailed.

- Bonds the value of which has decreased by more than 30% relative to the adjusted cost, at or after the balance sheet date, unless it can be demonstrated that special circumstances prevailed.
- Bonds with a rating downgraded to below Investment Grade.
- Bonds classified as problematic (impaired, substandard, under special supervision) by the Bank.

For further details regarding impairment of bonds, see Note 1E to the Financial Statements, Section 8(b).

### D.2.c. Credit quality of credit exposures

**Table D-1: Credit risk indicators**

	As at	
	December 31, 2019	December 31, 2018
Balance of impaired credit to the public, as a percentage of the balance of credit to the public*	<b>1.49%</b>	0.95%
Balance of unimpaired credit to the public, in arrears of 90 days or more, as a percentage of the balance of credit to the public*	<b>0.31%</b>	0.28%
Allowance for credit losses in respect of credit to the public, as a percentage of the balance of credit to the public*	<b>1.58%</b>	1.31%
Collective allowance for credit losses, as a percentage of the balance of credit to the public*	<b>1.12%</b>	1.14%
Allowance for credit losses in respect of credit to the public, as a percentage of the balance of impaired credit to the public*	<b>105.97%</b>	138.11%
Allowance for credit losses in respect of credit to the public, as a percentage of the balance of impaired credit to the public plus the balance of credit to the public in arrears of 90 days or more*	<b>87.90%</b>	106.49%
Problematic credit risk in respect of the public, as a percentage of total credit risk in respect of the public*	<b>2.42%</b>	1.89%
Provision (income) for credit losses as a percentage of the average recorded balance of credit to the public	<b>0.44%</b>	0.22%
Net charge-offs in respect of credit to the public as a percentage of the average recorded balance of credit to the public	<b>0.12%</b>	0.20%
Net charge-offs in respect of credit to the public as a percentage of the allowance for credit losses in respect of credit to the public	<b>7.48%</b>	14.58%

\* Before deduction of the allowance for credit losses.

The rate of nonperforming assets is presented in Table 3-1 in the Report of the Board of Directors and Board of Management as at December 31, 2019.

### Portfolio quality analysis

The following indicators increased (worsened) in 2019, compared with the end of 2018:

- The provision (income) for credit losses as a percentage of the average recorded balance of credit to the public.
- The balance of impaired credit to the public, as a percentage of the balance of credit to the public.
- The allowance for credit losses in respect of credit to the public, as a percentage of the balance of credit to the public.
- Problematic credit risk in respect of the public, as a percentage of total credit risk in respect of the public.



- The balance of unimpaired credit to the public, in arrears of 90 days or more, as a percentage of the balance of credit to the public.

Two indicators decreased (improved):

- The collective allowance for credit losses, as a percentage of the balance of credit to the public.
- Net charge-offs in respect of credit to the public, as a percentage of the average recorded balance of credit to the public.

The increase in most of the indicators of portfolio quality, which is substantial on four of the indicators, reflects effects that occurred after the balance sheet date, among other matters. The measures taken by the Bank to improve underwriting quality in the credit portfolio are reflected in the percentage of net charge-offs. The quality of the credit portfolio was adversely affected, and may continue to be affected, by the future consequences of the coronavirus outbreak, as noted in the section "Additional matters," above.

With regard to other indicators that refer to only to the risk in the portfolio of credit for private individuals, see Table D-13, below.

**Table D-2: Credit quality of credit exposures**

		<b>December 31, 2019</b>			
		Gross balances		Allowances	Net balances
		Impaired or in arrears of 90 days or more	Others	for credit losses or impairment	
		NIS millions			
1	Debts, excluding bonds	<b>4,158</b>	<b>392,970</b>	<b>1,408</b>	<b>395,720</b>
2	Bonds	-	<b>50,809</b>	-	<b>50,809</b>
3	Off-balance sheet exposures	-	<b>171,011</b>	<b>65</b>	<b>170,946</b>
4	<b>Total</b>	<b>4,158</b>	<b>614,790</b>	<b>1,473</b>	<b>617,475</b>

		December 31, 2018			
		Gross balances		Allowances	Net balances
		Impaired or in arrears of 90 days or more	Others	for credit losses or impairment	
		NIS millions			
1	Debts, excluding bonds	3,934	394,373	594	397,713
2	Bonds	-	47,860	-	47,860
3	Off-balance sheet exposures	-	185,769	81	185,688
4	<b>Total</b>	3,934	628,002	675	631,261

For details regarding change in problematic debts in respect of credit to the public and in the individual allowance, see Table 3-2 in the section "Review of risks" in the Report of the Board of Directors and Board of Management.

### D.3. Credit risk exposures

Table D-3: Details of exposures by economic sector

	December 31, 2019									
	Total credit risk <sup>(1)</sup>			Debts <sup>(2)</sup> and off-balance sheet credit risk (excluding derivatives) <sup>(3)</sup>						
	Total	Credit execution rating <sup>(5)</sup>	Problematic <sup>(6)</sup>	Total	Of which: debts <sup>(2)</sup>	Problematic <sup>(6)</sup>	Impaired	Provision (income) for credit losses	Net charge-offs	Allowance for credit losses
NIS millions										
<b>In respect of borrower activity in Israel</b>										
Public – commercial										
Agriculture	2,892	2,742	91	2,879	2,230	91	20	(22)	(18)	19
Mining and quarrying	2,449	1,188	1,250	2,440	1,962	1,177	987	490	1	511
Industry	31,029	29,736	915	30,514	14,237	912	405	26	33	333
Construction and real estate – construction <sup>(7)</sup>	67,577	65,812	951	67,454	27,798	951	603	(125)	(100)	523
Construction and real estate – real-estate activities	24,702	23,390	1,214	24,532	20,228	1,208	305	13	(112)	402
Electricity and water supply	10,803	9,649	1,069	9,574	5,730	1,032	359	87	2	149
Commerce	35,380	33,746	953	35,147	24,548	952	539	157	120	806
Hotels, hospitality, and food services	10,120	9,598	247	10,025	8,396	247	124	(10)	15	77
Transportation and storage	9,708	8,670	639	9,594	6,726	626	94	125	39	148
Information and communications	6,628	6,157	325	6,589	4,043	325	274	98	3	339
Financial services*	38,346	38,001	138	33,318	20,005	138	30	19	(38)	200
Other business services	13,297	12,775	130	13,262	8,616	130	112	65	50	148
Public and community services	7,582	7,403	70	7,572	5,724	70	22	21	15	57
Total commercial <sup>(8)</sup>	260,513	248,867	7,992	252,900	150,243	7,859	3,874	944	10	3,712
Private individuals – housing loans	96,480	94,590	696	96,480	89,228	696	2	31	9	443
Private individuals – other	59,540	56,420	904	59,532	38,626	904	760	193	297	785
Total public – activity in Israel	416,533	399,877	9,592	408,912	278,097	9,459	4,636	1,168	316	4,940
Banks in Israel <sup>(9)</sup>	2,905	2,905	-	1,120	132	-	-	-	-	-
Israeli government	41,585	41,585	-	794	794	-	-	-	-	-
Total activity in Israel	<sup>(9)</sup> 461,023	444,367	9,592	410,826	279,023	9,459	4,636	1,168	316	4,940

\* Credit balances of Isracard were included, beginning in the second quarter of 2019, due to the discontinuation of consolidation (June 30, 2019: balance in the amount of NIS 7,511 million).

- (1) Balance sheet credit risk and off-balance sheet credit risk<sup>(3)</sup>, including in respect of derivative instruments. Includes debts<sup>(2)</sup>, bonds, securities borrowed or purchased under agreements to resell, assets in respect of derivative instruments, and credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, in the amount of NIS 279,023, 40,319, 471, 4,575, and 136,635 million, respectively.
- (2) Credit to the public, credit to governments, and deposits with banks (excluding deposits with the Bank of Israel), excluding bonds, securities borrowed or purchased under agreements to resell, and assets in respect of activity in the Maof market (presented under the item "other assets").
- (3) Credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness.
- (4) Including in respect of off-balance sheet credit instruments (presented in the balance sheet under the item "other liabilities").
- (5) Credit risk for which the credit rating at the date of the report is congruent with the credit rating for the execution of new credit, according to the policy of the Bank.
- (6) Balance sheet and off-balance sheet credit risk that is impaired, substandard, or under special supervision, including in respect of housing loans for which an allowance based on the extent of arrears exists, and housing loans for which an allowance based on the extent of arrears does not exist which are in arrears of 90 days or more.
- (7) Including balance sheet credit risk in the amount of approximately NIS 754 million and off-balance sheet credit risk in the amount of approximately NIS 967 million extended to certain purchasing groups, which are currently in the process of construction. Also includes off-balance sheet credit risk in the amount of approximately NIS 3,589 million, in respect of which insurance was acquired from foreign insurance companies for the portfolio of Sale Law guarantees.
- (8) The balance of commercial debts includes the balance of housing loans, in the amount of approximately NIS 74 million, of commercial borrowers, or extended to purchasing groups currently in the process of construction.
- (9) Excluding cash balances of the Bank and deposits with the Bank of Israel, and before deducting the allowance for credit losses.

Table D-3: Details of exposures by economic sector (continued)

	December 31, 2019									
	Total credit risk <sup>(1)</sup>			Debts <sup>(2)</sup> and off-balance sheet credit risk (excluding derivatives) <sup>(3)</sup>						
	Total	Credit execution rating <sup>(5)</sup>	Problematic <sup>(6)</sup>	Total	Of which: Problematic <sup>(6)</sup> debts <sup>(2)</sup>	Impaired	Provision (income) for credit losses	Net charge-offs	Allowance for credit losses	Credit losses for the year ended December 31, 2019 <sup>(4)</sup>
NIS millions										
<b>In respect of borrower activity overseas</b>										
Public – commercial										
Agriculture	383	383	-	383	267	-	-	-	-	2
Mining and quarrying	747	747	-	207	63	-	-	(1)	-	
Industry	3,756	3,475	218	3,056	2,032	218	61	11	15	10
Construction and real estate	8,714	7,956	576	8,572	6,652	576	279	63	(13)	150
Electricity and water supply	903	823	10	516	210	10	10	(1)	-	6
Commerce	3,119	2,673	151	2,855	2,364	151	107	24	26	20
Hotels, hospitality, and food services	3,317	3,068	57	3,317	2,688	57	20	(1)		24
Transportation and storage	778	629	146	653	590	146	95	(3)	(2)	31
Information and communications	1,366	1,330	36	1,053	706	36	36	8	8	3
Financial services	7,279	7,233	44	3,411	2,262	44	39	12	-	34
Other business services	818	728	-	818	616	-	-	(1)	-	4
Public and community services	907	864	44	818	557	44	8	-	(1)	11
Total commercial <sup>(7)</sup>	32,087	29,909	1,282	25,659	19,007	1,282	655	111	33	295
Private individuals – housing loans	489	471	6	489	474	6	-	-	-	3
Private individuals – other	256	248	6	256	69	6	6	(2)	3	5
Total public – activity overseas	32,832	30,628	1,294	26,404	19,550	1,294	661	109	36	303
Banks overseas <sup>(8)</sup>	32,439	32,439	-	18,549	17,933	-	-	-	-	2
Governments overseas	9,294	9,294	-	1,183	1,183	-	-	(1)	-	6
Total activity overseas	<sup>(1)</sup> 74,565	72,361	1,294	46,136	38,666	1,294	661	108	36	311
Total in Israel and overseas	535,588	516,728	10,886	456,962	317,689	10,753	5,297	1,276	352	5,251

- (1) Balance sheet credit risk and off-balance sheet credit risk, including in respect of derivative instruments. Includes debts(2), bonds, securities borrowed or purchased under agreements to resell, assets in respect of derivative instruments, and credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, in the amount of NIS 38,666, 17,394, 0, 6,568, and 11,937 million, respectively.
- (2) Credit to the public, credit to governments, and deposits with banks, excluding bonds, securities borrowed or purchased under agreements to resell, and assets in respect of activity in the Maof market (presented under the item "other assets").
- (3) Credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, excluding in respect of derivative instruments.
- (4) Including in respect of off-balance sheet credit instruments (presented in the balance sheet under the item "other liabilities").
- (5) Credit risk for which the credit rating at the date of the report is congruent with the credit rating for the execution of new credit, according to the policy of the Bank.
- (6) Balance sheet and off-balance sheet credit risk that is impaired, substandard, or under special supervision, including in respect of housing loans for which an allowance based on the extent of arrears exists, and housing loans for which an allowance based on the extent of arrears does not exist which are in arrears of 90 days or more.
- (7) The balance of commercial debts includes the balance of housing loans, in the amount of approximately NIS 1 million, of commercial borrowers, or extended to purchasing groups currently in the process of construction.
- (8) Excluding cash balances of the Bank, and before deducting the allowance for credit losses.

**Table D-3: Details of exposures by economic sector (continued)**

	December 31, 2018*									
	Total credit risk <sup>(1)</sup>			Debts <sup>(2)</sup> and off-balance sheet credit risk (excluding derivatives) <sup>(3)</sup>						
	Total	Credit execution rating <sup>(5)</sup>	Problematic <sup>(6)</sup>	Total	Of which: debts <sup>(2)</sup>	Problematic <sup>(6)</sup>	Impaired	Provision (income) for credit losses	Net charge-offs	Allowance for credit losses
NIS millions										
<b>In respect of borrower activity in Israel (continued)</b>										
Public – commercial										
Agriculture	2,634	2,461	108	2,618	2,007	108	13	(4)	(12)	23
Mining and quarrying	2,681	2,658	12	2,504	2,129	12	12	(2)	1	21
Industry	32,971	31,509	1,151	32,123	14,223	1,150	377	7	(15)	341
Construction and real estate – construction <sup>(7)</sup>	57,307	55,510	1,114	57,153	25,129	1,114	589	(90)	(134)	541
Construction and real estate – real-estate activities	23,774	23,068	596	23,629	18,860	585	313	(150)	(129)	284
Electricity and water supply	10,133	9,376	720	8,975	5,034	706	6	(20)	5	70
Commerce	35,185	33,782	779	35,049	24,081	779	215	2	103	764
Hotels, hospitality, and food services	10,616	9,951	459	10,481	9,216	459	205	40	31	101
Transportation and storage	10,310	9,904	106	10,103	7,172	106	84	48	32	62
Information and communications	6,235	5,893	285	6,181	3,759	285	227	145	99	247
Financial services	33,495	33,040	87	27,360	15,019	87	29	(20)	(1)	144
Other business services	12,177	11,685	123	12,114	8,075	123	94	70	57	131
Public and community services	7,440	6,997	46	7,420	5,809	46	22	(6)	(4)	49
Total commercial <sup>(8)</sup>	244,958	235,834	5,586	235,710	140,513	5,560	2,186	20	33	2,778
Private individuals – housing loans	85,880	84,473	632	85,880	80,818	632	-	33	5	422
Private individuals – other	63,331	60,601	873	63,321	42,963	873	694	458	473	892
Total public – activity in Israel	394,169	380,908	7,091	384,911	264,294	7,065	2,880	511	511	4,092
Banks in Israel <sup>(9)</sup>	3,852	3,852	-	1,223	111	-	-	-	-	-
Israeli government	34,485	34,485	-	1,092	1,092	-	-	-	-	-
Total activity in Israel	<sup>(1)</sup> 432,506	419,245	7,091	387,226	265,497	7,065	2,880	511	511	4,092

\* Reclassified. Housing loans granted to individuals in an economic sector other than “private individuals” were reclassified from the commercial economic sectors to the sector “private individuals – housing loans.”

- (1) Balance sheet credit risk and off-balance sheet credit risk<sup>(3)</sup>, including in respect of derivative instruments. Includes debts<sup>(2)</sup>, bonds, securities borrowed or purchased under agreements to resell, assets in respect of derivative instruments, and credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, in the amount of NIS 265,497, 33,394, 708, 5,982, and 126,925 million, respectively.
- (2) Credit to the public, credit to governments, and deposits with banks (excluding deposits with the Bank of Israel), excluding bonds, securities borrowed or purchased under agreements to resell, and assets in respect of activity in the Maof market (presented under the item “other assets”).
- (3) Credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, excluding in respect of derivative instruments.
- (4) Including in respect of off-balance sheet credit instruments (presented in the balance sheet under the item “other liabilities”).
- (5) Credit risk for which the credit rating at the date of the report is congruent with the credit rating for the execution of new credit, according to the policy of the Bank.
- (6) Balance sheet and off-balance sheet credit risk that is impaired, substandard, or under special supervision, including in respect of housing loans for which an allowance based on the extent of arrears exists, and housing loans for which an allowance based on the extent of arrears does not exist which are in arrears of 90 days or more.
- (7) Including balance sheet credit risk in the amount of approximately NIS 423 million and off-balance sheet credit risk in the amount of approximately NIS 398 million extended to certain purchasing groups, which are currently in the process of construction. Also includes off-balance sheet credit risk in the amount of approximately NIS 22,617 million, in respect of which insurance was acquired from foreign insurance companies for the portfolio of Sale Law guarantees.
- (8) The balance of commercial debts includes the balance of housing loans, in the amount of approximately NIS 124 million, of commercial borrowers, or extended to purchasing groups currently in the process of construction.
- (9) Excluding cash balances of the Bank and deposits with the Bank of Israel, and before deducting the allowance for credit losses.

**Table D-3: Details of exposures by economic sector (continued)**

	December 31, 2018*									
	Total credit risk <sup>(1)</sup>			Debts <sup>(2)</sup> and off-balance sheet credit risk (excluding derivatives) <sup>(3)</sup>						
	Total	Credit execution rating <sup>(5)</sup>	Problematic <sup>(6)</sup>	Total	Of which: debts <sup>(2)</sup>	Problematic <sup>(6)</sup>	Impaired	Provision (income) for credit losses	Net charge-offs	Allowance for credit losses
NIS millions										
<b>In respect of borrower activity overseas (continued)</b>										
Public – commercial										
Agriculture	432	430	1	432	228	1	1	-	-	1
Mining and quarrying	606	540	68	172	106	68	-	-	-	-
Industry	4,333	4,211	43	3,868	2,422	43	35	14	19	12
Construction and real estate	10,310	9,717	387	10,098	7,325	387	87	6	(20)	73
Electricity and water supply	1,069	971	81	664	325	81	-	5	-	8
Commerce	3,653	3,241	90	3,300	2,653	90	19	9	1	23
Hotels, hospitality, and food services	3,127	2,720	91	3,127	2,539	91	90	16	(1)	26
Transportation and storage	663	557	81	538	406	81	81	27	(3)	32
Information and communications	1,368	1,297	116	921	553	116	71	13	13	4
Financial services	9,650	9,647	20	5,361	3,531	20	1	9	5	20
Other business services	738	712	25	720	482	25	-	-	-	10
Public and community services	1,190	1,123	66	1,069	714	66	17	2	-	10
Total commercial <sup>(7)</sup>	37,139	35,166	1,069	30,270	21,284	1,069	402	101	14	219
Private individuals – housing loans	534	524	6	534	512	6	-	-	-	2
Private individuals – other	358	384	18	357	175	18	18	(1)	23	12
Total public – activity overseas	38,031	36,074	1,093	31,161	21,971	1,093	420	100	37	233
Banks overseas <sup>(8)</sup>	28,168	28,168	-	14,710	13,980	-	-	(2)	-	2
Governments overseas	11,832	11,832	-	1,343	1,343	-	-	4	-	7
Total activity overseas	<sup>(1)</sup> 78,031	76,074	1,093	47,214	37,294	1,093	420	102	37	242
Total in Israel and overseas	510,537	495,319	8,184	434,440	302,791	8,158	3,300	613	548	4,334

\* Reclassified. Housing loans granted to individuals in an economic sector other than “private individuals” were reclassified from the commercial economic sectors to the sector “private individuals – housing loans.”

\* Credit balances of Isracard were included, beginning in the second quarter of 2019, due to the discontinuation of consolidation (June 30, 2019: balance in the amount of NIS 7,511 million).

(1) Balance sheet credit risk and off-balance sheet credit risk, including in respect of derivative instruments. Includes debts(2), bonds, securities borrowed or purchased under agreements to resell, assets in respect of derivative instruments, and credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, in the amount of NIS 37,294, 21,201, 0, 4,552, and 14,984 million, respectively.

(2) Credit to the public, credit to governments, and deposits with banks, excluding bonds, securities borrowed or purchased under agreements to resell, and assets in respect of activity in the Maof market (presented under the item “other assets”).

(3) Credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limit on borrower indebtedness, excluding in respect of derivative instruments.

(4) Including in respect of off-balance sheet credit instruments (presented in the balance sheet under the item “other liabilities”).

(5) Credit risk for which the credit rating at the date of the report is congruent with the credit rating for the execution of new credit, according to the policy of the Bank.

(6) Balance sheet and off-balance sheet credit risk that is impaired, substandard, or under special supervision, including in respect of housing loans for which an allowance based on the extent of arrears exists, and housing loans for which an allowance based on the extent of arrears does not exist which are in arrears of 90 days or more.

(7) The balance of commercial debts includes the balance of housing loans, in the amount of approximately NIS 0 million, of commercial borrowers, or extended to purchasing groups currently in the process of construction.

(8) Excluding cash balances of the Bank, and before deducting the allowance for credit losses.

Table D-4: Exposures by remaining contractual term to maturity\*

	December 31, 2019				
	Up to one year	One year to five years	Over five years	No maturity period	Total credit exposures
	NIS millions				
<b>Balance sheet exposures</b>					
Commercial	95,180	59,073	22,095	2,832	179,180
Private individuals – housing loans	7,854	27,722	77,076	87	112,739
Private individuals – other	21,986	17,456	1,129	1,446	42,017
Assets in respect of derivative instruments	1,847	1,952	428	-	4,227
<b>Total public</b>	<b>126,867</b>	<b>106,203</b>	<b>100,728</b>	<b>4,365</b>	<b>338,163</b>
Banks and governments	106,397	27,738	19,365	26	153,526
<b>Total balance sheet credit exposure</b>	<b>233,264</b>	<b>133,941</b>	<b>120,093</b>	<b>4,391</b>	<b>491,689</b>
Of which: bonds	16,074	24,389	20,106	-	60,569
<b>Total off-balance sheet credit exposure</b>	<b>79,620</b>	<b>77,961</b>	<b>12,789</b>	<b>-</b>	<b>170,370</b>

	December 31, 2018				
	Up to one year	One year to five years	Over five years	No maturity period	Total credit exposures
	NIS millions				
<b>Balance sheet exposures</b>					
Commercial	88,536	62,445	29,574	5,701	186,256
Private individuals – housing loans	6,657	23,067	61,149	83	90,956
Private individuals – other	21,321	23,726	1,929	156	47,132
Assets in respect of derivative instruments	2,824	1,502	542	-	4,868
<b>Total public</b>	<b>119,338</b>	<b>110,740</b>	<b>93,194</b>	<b>5,940</b>	<b>329,212</b>
Banks and governments	103,413	32,259	10,532	70	146,274
<b>Total balance sheet credit exposure</b>	<b>222,751</b>	<b>142,999</b>	<b>103,726</b>	<b>6,010</b>	<b>475,486</b>
Of which: bonds	16,951	30,412	11,565	-	58,928
<b>Total off-balance sheet credit exposure</b>	<b>105,232</b>	<b>52,501</b>	<b>6,908</b>	<b>-</b>	<b>164,641</b>

\* Does not include the data of the Isracard Group, which constitutes a discontinued operation. For details, see Note 1G to the Financial Statements.

### D.3.a. Exposure to foreign countries

Balance sheet exposure to foreign countries as at December 31, 2019 amounted to NIS 48.8 billion, compared with NIS 47.9 billion at the end of 2018. The increase mainly resulted from an increase in deposits with the Federal Reserve.

Off-balance sheet exposure to foreign countries as at December 31, 2019 amounted to NIS 15.3 billion, compared with NIS 20.3 billion at the end of 2018.

The Bank operates in accordance with an ordered policy that sets limits and terms for the exposure to foreign countries.

**Table D-5: Total principal exposures to foreign countries**

<b>December 31, 2019<sup>(1)</sup></b>						
Balance sheet exposure <sup>(4)</sup>						
	Cross-border balance sheet exposure			Balance sheet exposure of the banking corporation's branches/subsidiaries in foreign countries to local residents		
	To governments <sup>(3)</sup>	To banks	To others	Balance sheet exposure before deduction of local liabilities	Deduction in respect of local liabilities	Net balance sheet exposure after deduction of local liabilities
NIS millions						
<b>Country</b>						
United States	<b>7,538</b>	<b>1,729</b>	<b>2,244</b>	<b>24,918</b>	<b>13,529</b>	<b>11,389</b>
Switzerland	-	<b>1,094</b>	<b>289</b>	<b>2,243</b>	-	<b>2,243</b>
England	-	<b>4,542</b>	<b>3,409</b>	-	-	-
Germany	<b>43</b>	<b>803</b>	<b>319</b>	-	-	-
France	<b>14</b>	<b>1,893</b>	<b>88</b>	-	-	-
Others	<b>302</b>	<b>5,310</b>	<b>5,170</b>	<b>444</b>	<b>22</b>	<b>422</b>
Total exposures to foreign countries	<b>7,897</b>	<b>15,371</b>	<b>11,519</b>	<b>27,605</b>	<b>13,551</b>	<b>14,054</b>
Of which: total exposure to PIGS (Portugal, Italy, Greece, and Spain)	-	<b>17</b>	<b>127</b>	-	-	-
Of which: total exposure to LDCs	<b>2</b>	<b>304</b>	<b>653</b>	<b>427</b>	<b>22</b>	<b>405</b>
Of which: total exposure to countries with liquidity problems	-	-	-	-	-	-

The line "total LDCs" includes the total exposure to countries defined as Least Developed Countries (LDCs) in Proper Conduct of Banking Business Directive 315, "Supplementary Provision for Doubtful Debts."

Balance sheet exposure to a foreign country includes cross-border balance sheet exposure and balance sheet exposure of the branches/subsidiaries of the banking corporation in the foreign country to local residents. Cross-border balance sheet exposure includes balance sheet exposure of the branches/subsidiaries of the banking corporation in Israel to residents of the foreign country, and balance sheet exposure of the overseas branches/subsidiaries of the banking corporation to non-residents of the country in which the branch/subsidiary is located.

Balance sheet exposure of the banking corporation's branches/subsidiaries in a foreign country to local residents includes balance sheet exposure of the branches/subsidiaries of the banking corporation in that foreign country to the residents of the country, less liabilities of those branches/subsidiaries (the deduction is performed up to the level of the exposure).

- (1) Based on the final risk, after the effect of guarantees, liquid collateral, and credit derivatives.
- (2) Credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limits on indebtedness of a borrower, according to Proper Conduct of Banking Business Directive 313.
- (3) Governments, official institutions, and central banks.
- (4) Balance sheet and off-balance sheet credit risk, problematic credit risk, and impaired debts are presented before the effect of the allowance for credit losses, and before the effect of collateral deductible for the purposes of the indebtedness of a borrower and of a group of borrowers.
- (5) The balance of the off-balance sheet exposure to foreign countries includes a total of NIS 13,797 million, in 2019, in respect of the acquisition of insurance for the portfolio of Sale Law guarantees from international reinsurers (2018: NIS 22,617 million).

<b>December 31, 2019<sup>(1)</sup></b>						
Balance sheet exposure <sup>(4)</sup>			Off-balance sheet exposure <sup>(2)(4)(5)</sup>			
Total balance sheet exposure	Problematic balance sheet credit risk <sup>(4)</sup>	Impaired debts <sup>(4)</sup>	Total off-balance sheet exposure	Of which: problematic off-balance sheet credit risk <sup>(4)</sup>	Cross-border balance sheet exposure	
					Maturity up to one year	Maturity over one year
NIS millions						
<b>22,900</b>	<b>641</b>	<b>274</b>	<b>6,557</b>	<b>219</b>	<b>1,804</b>	<b>9,707</b>
<b>3,626</b>	-	-	<b>1,097</b>	-	<b>924</b>	<b>459</b>
<b>7,951</b>	<b>1</b>	-	<b>2,985</b>	-	<b>1,837</b>	<b>6,114</b>
<b>1,165</b>	<b>1</b>	-	<b>1,463</b>	-	<b>453</b>	<b>712</b>
<b>1,995</b>	<b>8</b>	-	<b>1,512</b>	-	<b>230</b>	<b>1,765</b>
<b>11,204</b>	<b>210</b>	<b>124</b>	<b>1,689</b>	-	<b>2,142</b>	<b>8,640</b>
<b>48,841</b>	<b>861</b>	<b>398</b>	<b>15,303</b>	<b>219</b>	<b>7,390</b>	<b>27,397</b>
<b>144</b>	-	-	<b>385</b>	-	<b>11</b>	<b>133</b>
<b>1,364</b>	<b>190</b>	<b>108</b>	<b>187</b>	-	<b>89</b>	<b>870</b>
<b>8</b>	-	-	-	-	-	-



**Table D-5: Total principal exposures to foreign countries (continued)**

	December 31, 2018 <sup>(1)(6)</sup>					
	Balance sheet exposure <sup>(4)</sup>					
	Cross-border balance sheet exposure			Balance sheet exposure of the banking corporation's branches/subsidiaries in foreign countries to local residents		
	To governments <sup>(3)</sup>	To banks	To others	Balance sheet exposure before deduction of local liabilities	Deduction in respect of local liabilities	Net balance sheet exposure after deduction of local liabilities
NIS millions						
<b>Country</b>						
United States	9,292	1,685	2,761	23,519	15,812	7,707
Switzerland	-	591	313	2,069	-	2,069
England	49	3,923	3,196	105	-	105
Germany	103	86	606	-	-	-
France	15	1,677	204	-	-	-
Others	968	4,655	7,374	585	15	570
Total exposures to foreign countries	10,427	12,617	14,454	26,278	15,827	10,451
Of which: total exposure to PIGS (Portugal, Italy, Greece, and Spain)	-	128	139	-	-	-
Of which: total exposure to LDCs	74	343	827	565	15	550
Of which: total exposure to countries with liquidity problems	-	-	-	-	-	-

The line "total LDCs" includes the total exposure to countries defined as Least Developed Countries (LDCs) in Proper Conduct of Banking Business Directive 315, "Supplementary Provision for Doubtful Debts."

Balance sheet exposure to a foreign country includes cross-border balance sheet exposure and balance sheet exposure of the branches/subsidiaries of the banking corporation in the foreign country to local residents. Cross-border balance sheet exposure includes balance sheet exposure of the branches/subsidiaries of the banking corporation in Israel to residents of the foreign country, and balance sheet exposure of the overseas branches/subsidiaries of the banking corporation to non-residents of the country in which the branch/subsidiary is located.

Balance sheet exposure of the banking corporation's branches/subsidiaries in a foreign country to local residents includes balance sheet exposure of the branches/subsidiaries of the banking corporation in that foreign country to the residents of the country, less liabilities of those branches/subsidiaries (the deduction is performed up to the level of the exposure).

- (1) Based on the final risk, after the effect of guarantees, liquid collateral, and credit derivatives.
- (2) Credit risk in off-balance sheet financial instruments, as calculated for the purpose of the limits on indebtedness of a borrower, according to Proper Conduct of Banking Business Directive 313.
- (3) Governments, official institutions, and central banks.
- (4) Balance sheet and off-balance sheet credit risk, problematic credit risk, and impaired debts are presented before the effect of the allowance for credit losses, and before the effect of collateral deductible for the purposes of the indebtedness of a borrower and of a group of borrowers.
- (5) The balance of the off-balance sheet exposure to foreign countries includes a total of NIS 22,617 million in respect of the acquisition of insurance for the portfolio of Sale Law guarantees from international reinsurers.
- (6) Reclassified for presentation of the data of the Isracard Group as a discontinued operation.

December 31, 2018 <sup>(1)(6)</sup>							
Balance sheet exposure <sup>(4)</sup>			Off-balance sheet exposure <sup>(2)(4)(5)</sup>			Cross-border balance sheet exposure	
Total balance sheet exposure	Problematic balance sheet credit risk <sup>(4)</sup>	Impaired debts <sup>(4)</sup>	Total off-balance sheet exposure	Of which: problematic off-balance sheet credit risk <sup>(4)</sup>	Maturity up to one year	Maturity over one year	
NIS millions							
21,445	549	262	7,177	300	909		12,829
2,973	1	-	1,774	-	219		685
7,273	3	-	4,358	-	1,543		5,625
795	-	-	1,894	-	188		607
1,896	5	5	2,205	-	109		1,787
13,567	242	112	2,921	-	3,334		9,664
47,949	800	379	20,329	300	6,302		31,197
267	-	-	481	-	11		257
1,794	219	90	259	-	190		1,054
10	-	-	6	-	-		-

**Table D-6: Changes in amount of balance sheet exposure to foreign countries with liquidity problems<sup>(1)</sup>**

	<b>For the year ended December 31, 2019</b>			
	Ukraine	Venezuela	Argentina	Total
	NIS millions			
Amount of exposure at beginning of period	<b>5</b>	<b>2</b>	<b>3</b>	<b>10</b>
Net changes in amount of short-term exposure	-	-	-	-
Changes in other exposures:				
Added exposures	-	-	-	-
Accrued interest income	-	-	-	-
Amounts collected	-	<b>(2)</b>	-	<b>(2)</b>
Amount of exposure at end of period	<b>5</b>	-	<b>3</b>	<b>8</b>

	<b>For the year ended December 31, 2018</b>			
	Ukraine	Venezuela	Argentina	Total
	NIS millions			
Amount of exposure at beginning of period	28	3	3	34
Net changes in amount of short-term exposure	(24)	-	1	(23)
Changes in other exposures:				
Added exposures	-	-	-	-
Accrued interest income	1	-	-	1
Amounts collected	-	(1)	(1)	(2)
Amount of exposure at end of period	5	2	3	10

(1) Based on the final risk, after the effect of guarantees, liquid collateral, and credit derivatives.

For details regarding changes in the allowance for credit losses, analysis of aging (arrear) of credit exposures in arrears, and details of restructured credit exposures, see Note 29 to the Financial Statements, Sections A1, B1(a), and B2(c), respectively.

#### D.4. Additional information regarding exposures to credit risks

##### D.4.a. Construction and real estate

Overall credit risk in the construction and real-estate sectors totaled approximately NIS 101 billion as at December 31, 2019.

Table D-7: Segmentation of credit risk of the Bank Group in the construction and real-estate sectors, by principal area of activity\*\*

	Balance as at December 31, 2019			Balance as at December 31, 2018		
	Balance sheet credit risk	Off-balance sheet credit risk	Total credit risk	Balance sheet credit risk**	Off-balance sheet credit risk**	Total credit risk**
	NIS millions					
Construction for commerce and services	<b>3,566</b>	<b>2,484</b>	<b>6,050</b>	2,053	830	2,883
Construction for industry	<b>421</b>	<b>99</b>	<b>520</b>	383	112	495
Housing construction	<b>17,960</b>	<b>*28,208</b>	<b>46,168</b>	16,471	*24,754	41,225
Yield-generating properties	<b>22,866</b>	<b>4,945</b>	<b>27,811</b>	22,991	6,198	29,189
Other	<b>9,946</b>	<b>10,498</b>	<b>20,444</b>	9,568	8,031	17,599
Total construction and real-estate sectors	<b>54,759</b>	<b>46,234</b>	<b>100,993</b>	51,466	39,925	91,391

\* Includes off-balance sheet credit risk in the amount of approximately NIS 3,589 million, in respect of which insurance was acquired from foreign insurance companies for the portfolio of Sale Law guarantees (December 31, 2018: NIS 6,026 million).

\*\* Reclassified. Housing loans granted to individuals in an economic sector other than "private individuals" were reclassified from the commercial economic sectors to the sector "private individuals – housing loans."

#### D.4.b. Credit risk in respect of exposures to borrowers and to groups of borrowers

Table D-8: Details of balances of balance sheet credit and off-balance sheet credit risk to borrowers whose indebtedness exceeds NIS 1,200 million, by sector of the economy

	December 31, 2019			
	Number of borrowers	Balance sheet credit risk	Off-balance sheet credit risk	Total
	NIS millions			
<b>Economic sector</b>				
Industry	2	26	4,012	4,038
Construction and real estate – real-estate activities	-	-	-	-
Electricity and water supply	1	1,419	1,261	2,680
Information and communications	-	-	-	-
Hotels, hospitality, and food services	1	941	261	1,202
Financial services*	6	9,225	6,320	15,545
<b>Total</b>	<b>10</b>	<b>11,611</b>	<b>11,854</b>	<b>23,465</b>

	December 31, 2018			
	Number of borrowers	Balance sheet credit risk	Off-balance sheet credit risk	Total
	NIS millions			
<b>Economic sector</b>				
Industry	3	877	5,164	6,041
Construction and real estate – real-estate activities	1	756	647	1,403
Electricity and water supply	1	1,276	2,315	3,591
Financial services	3	3,077	2,571	5,648
<b>Total</b>	<b>8</b>	<b>5,986</b>	<b>10,697</b>	<b>16,683</b>

\* Due to the discontinuation of consolidation of the Isracard Group, credit balances of the group were included beginning in the second quarter of 2019 (as at June 30, 2019: balance sheet credit in the amount of NIS 3,481 million, off-balance sheet credit in the amount of NIS 4,030 million).

#### Credit risk in respect of exposure to borrower groups

The Bank conducts monitoring and control processes in order to examine compliance with the limits set forth in Directive 313 with regard to exposure to the indebtedness of borrower groups. As at the reporting date, the Bank is in compliance with the limits.

**Table D-9: Details of credit risk balances for each group of borrowers whose net indebtedness on a consolidated basis exceeds 15% of the capital of the banking corporation (as defined in Directive 313)**

	Balance sheet credit risk	Off-balance sheet credit risk	Of which: off-balance sheet credit risk in respect of derivative instruments <sup>(2)</sup>	Gross indebtedness <sup>(3)</sup>	Deductions <sup>(4)</sup>	Net indebtedness <sup>(1)</sup>	Percentage of regulatory capital
NIS millions							
Borrower group A	3,210	2,926	219	6,136	7	6,129	15.22%

(1) The data presented below represent exposure to borrower groups, and are stated after the permitted deductions pursuant to Directive 313. These data are therefore not comparable with data regarding borrowers' indebtedness provided in other disclosures in the report.

(2) Off-balance sheet credit risk in respect of derivative instruments, as calculated for the purposes of the limits on indebtedness of borrowers and of borrower groups.

(3) This amount includes third-party guarantees outside the group.

(4) Deductions permitted under Directive 313, mainly including deposits deposited at the Bank, bonds issued by the State of Israel, and deductible indemnity letters of the State of Israel or financial institutions.

#### **D.4.c. Risks in the housing loan portfolio**

**Table D-10: Development of the balance in the housing credit portfolio, by linkage base and as a percentage of the balance in the credit portfolio of the Bank**

	Unlinked segment				CPI-linked segment				Foreign-currency segment		Total	
	Fixed interest rate		Floating interest rate		Fixed interest rate		Floating interest rate		Floating interest rate		Recorded debt balance in NIS millions	Rate of change during the period
	Balance in NIS millions	Rate in %	Balance in NIS millions	Rate in %	Balance in NIS millions	Rate in %	Balance in NIS millions	Rate in %	Balance in NIS millions	Rate in %		
<b>Dec. 31, 2019</b>	<b>17,301</b>	<b>19.3%</b>	<b>34,565</b>	<b>38.5%</b>	<b>13,811</b>	<b>15.4%</b>	<b>23,834</b>	<b>26.5%</b>	<b>266</b>	<b>0.3%</b>	<b>89,777</b>	<b>10.2%</b>
Dec. 31, 2018	14,503	17.8%	31,060	38.1%	13,539	16.6%	21,984	27.0%	368	0.5%	81,454	9.3%
Dec. 31, 2017	12,455	16.7%	28,022	37.6%	12,988	17.4%	20,619	27.7%	437	0.6%	74,521	7.6%

#### **Risk quantification and measurement – housing credit portfolio**

The Bank routinely monitors developments in the housing credit portfolio, and applies various measures to manage risk. Housing credit risks are examined individually, based on the policies and objectives established in the risk appetite set for housing credit, from the level of the individual transaction to an overview of the housing credit portfolio of the Bank.

Risk hedging: The Bank manages and hedges risk, among other means, through limits on various segments, as established in policy discussions of the Board of Management and the Board of Directors, overseen and led by the Risk Management Division. The limits address LTV rates, repayment capability, distribution of credit products in the portfolio, volume of problematic debt, loan durations, geographical distribution, the rate of arrears, etc. These indicators are also monitored in comparison to the data of the banking system as a whole.

The Bank tracks conditions and changes in macro-economic indicators in general, and in the business environment of the industry in particular. Certain events require a reexamination of policy, such as a sharp increase in the floating interest rate or in inflation, an increase in unemployment in the Israeli economy, or a material change in housing prices.

Data are reported on a monthly basis in a divisional risk forum headed by the Head of Retail Banking, and on a quarterly basis as part of the report on developments in the credit portfolio and in credit risk to the Board of Management and Board of Directors.

The Bank uses a statistical model to measure the probability of default and the expected loss in the mortgage portfolio. In addition, stress scenarios are applied to the mortgage portfolio, and the effect on the portfolio and on the Bank as a whole is analyzed. These scenarios include a sharp decline in prices of homes, an increase in the interest rate, and an increase in the unemployment rate. In addition, insurance arrangements are in place (life insurance and building insurance).

**Table D-11: Details of characteristics of housing credit granted by the Bank – percentage of total new loans executed**

	For the year ended		
	December 31, 2019	December 31, 2018	December 31, 2017
<b>Characteristics</b>			
Financing rate over 60%	<b>38.5%</b>	32.5%	27.5%
Ratio of repayment to income greater than 40% (for purchases of homes and in monthly payments)	<b>0.0%</b>	0.1%	0.0%
Percentage with floating interest rates varying at a frequency of less than 5 years	<b>31.7%</b>	31.7%	31.4%
Percentage with floating rates	<b>59.1%</b>	58.8%	57.1%
Percentage of all-purpose loans	<b>5.7%</b>	6.1%	6.4%
Loans for investment purposes as a percentage of purchases of homes	<b>9.5%</b>	9.8%	11.1%
Principal planned for repayment after age 67 (excluding investments)	<b>7.2%</b>	7.2%	6.6%
Average original term to maturity of loans for purchases of homes, in years (excluding bridge loans)	<b>24.4</b>	24.4	23.8

The upward trend in balances of housing loans continued in 2019.

Data on housing-loan execution show worsening on two indicators:

- The percentage of loans executed at a financing rate greater than 60% trended up in 2019, due, among other factors, to an increase in the percentage of Mechir Lamishtaken (“Tenant Price”) mortgages, which have high financing rates. However, the Bank strictly adheres to near-zero levels of loans granted at payment to income ratios greater than 40%, which, in the opinion of the Bank, constitutes a more significant indicator of credit risk.
- An increase in the percentage of floating-rate loans.

Several indicators showed improvement:

- A decrease in the percentage of all-purpose loans in 2019.
- A decrease in loans for investment purposes as a percentage of total purchases of homes in 2019.

Several indicators were stable:

- The percentage of loans with payment to income ratios greater than 40%.
- The average term to maturity of loans for purchases of homes (excluding bridge loans).
- The percentage of loans with floating interest rates varying at a frequency of less than 5 years.

Overall, housing credit indicators demonstrate that balances grew, while underwriting quality was maintained.

#### D.4.d. Credit to private individuals (excluding housing)

Table D-12: Balance of credit to private individuals in Israel

	Balance as at		Change	
	December 31, 2019	December 31, 2018		%
	NIS millions			%
<b>Balance sheet</b>				
Negative balance in current accounts	<b>3,216</b>	3,374	(158)	(4.68%)
Loans <sup>(1)</sup>	<b>26,918</b>	30,288	(3,370)	(11.13%)
Of which: bullet and balloon loans	<b>78</b>	114	(36)	(31.58%)
Credit for purchases of motor vehicles <sup>(2)</sup>	<b>3,511</b>	4,375	(864)	(19.75%)
Debtors in respect of credit-card activity	<b>4,958</b>	4,877	81	1.66%
Total balance sheet credit risk	<b>38,681</b>	43,028	(4,347)	(10.10%)
<b>Off-balance sheet</b>				
Off-balance sheet credit risk	<b>21,092</b>	20,529	563	2.74%
Total credit risk	<b>59,773</b>	63,557	(3,784)	(5.95%)

(1) Excluding loans for purchases of motor vehicles.

(2) Including loans granted for the purchase of motor vehicles or with a lien on a motor vehicle. For additional details, see Section 3.2.10, "Auto loans," below.

Table D-13: Information regarding problematic debts in respect of private individuals in Israel

	Balance as at		Change	Percentage of total balance sheet credit risk	
	December 31, 2019	December 31, 2018		December 31, 2019	December 31, 2018
	NIS millions				
Problematic credit risk	<b>905</b>	872	3.8%	<b>2.3%</b>	2.0%
Of which: impaired credit risk	<b>760</b>	694	9.5%	<b>2.0%</b>	1.6%
Debts in arrears of more than 90 days	<b>93</b>	107	(13.1%)	<b>0.2%</b>	0.2%
Net charge-offs for the period	<b>297</b>	473	(37.2%)	<b>1.0%</b>	1.1%
Allowance for credit losses	<b>785</b>	892	(12.0%)	<b>2.0%</b>	2.1%



The balance of loans to private individuals in Israel, including credit for the purchase of motor vehicles, decreased by 12.2% in 2019. Total balance sheet credit risk decreased by 10.1%.

The following indicators increased in 2019, compared with the end of 2018:

- The balance of risk of problematic credit to private individuals in Israel rose by 3.8%; of that, the balance of impaired credit risk increased by approximately 9.5%.

The following indicators decreased:

- The balance of debts in arrears of more than 90 days decreased by approximately 13.1%.
- Net charge-offs decreased sharply, by approximately 37.2%.
- The allowance for credit losses decreased by approximately 12.0%.

It is the Bank's view that the steep drop in the amount of net charge-offs demonstrates the continued impact of the measures taken by the Bank to improve underwriting quality in credit for private individuals. The quality of the credit portfolio may be affected by the future consequences of the coronavirus outbreak, as noted in the section "Additional matters."

#### **D.4.e. Leveraged financing**

Leveraged financing is managed and defined at the Bank in accordance with the directives of the Bank of Israel, and in particular, with Proper Conduct of Banking Business Directive 311 (Credit Risk Management), Proper Conduct of Banking Business Directive 323 (Limits on Financing of Equity Transactions), and Proper Conduct of Banking Business Directive 327 (Management of Leveraged Loans).

Among other matters, leveraged financing includes equity transactions (transactions for the acquisition of an equity interest in another corporation, acquisition of all or a significant part of the assets of another corporation, buybacks of issued shareholders' equity, or capital distribution – payment of a dividend, or another transaction aimed at increasing value for shareholders, as defined in Proper Conduct of Banking Business Directive 323), and financing for borrowers in various segments of specified economic sectors characterized by exceptional levels of certain parameters, relative to the accepted norms in the economic sectors, such as a high financing rate that deviates from the policy for the sector, and financing of mezzanine debt.

The Bank provides leveraged financing to its customers from time to time. An internal limit applies to leveraged financing as a percentage of the Tier 1 capital of the Bank. Developments in leveraged financing and compliance with the established limit are reported each quarter to the Board of Management and the Board of Directors of the Bank, for monitoring of the risks inherent in this type of financing.

Data regarding credit risks in respect of leveraged financing follow. The disclosure focuses on exposures of leveraged borrowers/transactions where the credit balance exceeds the amount of 0.5% of Tier 1 capital.

Table D-14: Exposures of the Bank to leveraged financing, by economic sector of the borrower

	December 31, 2019			
	Number of borrowers	Balance sheet credit balance	Off-balance sheet credit balance	Total
	NIS millions			
<b>Economic sector of the borrower</b>				
Construction and real estate – construction	1	-	-	-
Construction and real estate – real-estate activities	1	103	110	213
Mining and quarrying	2	498	-	498
Electricity and water*	1	-	266	266
Information and communications	1	235	9	244
Commerce	1	338	83	421
Industry	2	633	-	633
<b>Total</b>	<b>9</b>	<b>1,807</b>	<b>468</b>	<b>2,275</b>

\* Net of an individual allowance for credit losses in the amount of approximately NIS 569 million.

	December 31, 2018			
	Number of borrowers	Balance sheet credit balance	Off-balance sheet credit balance	Total
	NIS millions			
<b>Economic sector of the borrower</b>				
Construction and real estate – construction	1	257	-	257
Construction and real estate – real-estate activities	2	658	534	1,192
Mining and quarrying	2	1,361	38	1,399
Information and communications	1	266	-	266
Commerce	3	741	170	911
Industry	1	225	-	225
<b>Total</b>	<b>10</b>	<b>3,508</b>	<b>742</b>	<b>4,250</b>

#### D.5. Credit risk mitigation: standardized approach disclosures

The Bank applies the comprehensive standardized approach in order to determine risk weightings to apply to the counterparty. The standardized approach requires the use of independent ratings prepared by international rating agencies.

Pursuant to the Basel 3 directives, under certain conditions, certain collateral, such as guarantees, credit derivatives, and financial assets held as collateral, can be deducted from risk components for the purpose of calculating the capital-adequacy ratio.

The deduction of collateral for the calculation of the capital ratio is performed after using safety margins established in the directive. These margins take into account factors including the term to maturity of the collateral, any lack of congruity between the linkage terms of the collateral and of the credit that it secures, and volatility in the value of the collateral.

The qualifying financial collateral used by the Bank to calculate capital adequacy and risk mitigation includes deposits that constitute collateral by way of liens, bonds of banking corporations and governments under permanent liens, and shares under lien traded on the primary index. In addition, the Bank uses guarantees of banking corporations, which transfer the exposure from the segment of the guaranteed party to exposure to banking corporations.

**Table D-15: Credit risk mitigation**

	December 31, 2019									
	Unsecured		Secured							
	Total balance sheet balance	Total balance sheet balance	Of which: amount secured	Of which: by collateral		Of which: by financial guarantees		Of which: by credit derivatives		
				Balance sheet balance	Of which: amount secured	Balance sheet balance	Of which: amount secured	Balance sheet balance	Of which: amount secured	
	NIS millions									
1 Debts, excluding bonds	<b>383,102</b>	<b>12,618</b>	<b>6,560</b>	<b>9,927</b>	<b>4,306</b>	<b>2,691</b>	<b>2,254</b>	-	-	
2 Bonds	<b>50,809</b>	-	-	-	-	-	-	-	-	
3 Total	<b>433,911</b>	<b>12,618</b>	<b>6,560</b>	<b>9,927</b>	<b>4,306</b>	<b>2,691</b>	<b>2,254</b>	-	-	
4 Of which: impaired or in arrears of 90 days or more	<b>3,361</b>	<b>13</b>	<b>3</b>	<b>13</b>	<b>3</b>	-	-	-	-	
	December 31, 2018									
	Unsecured		Secured							
Total balance sheet balance	Total balance sheet balance	Of which: amount secured	Of which: by collateral		Of which: by financial guarantees		Of which: by credit derivatives			
			Balance sheet balance	Of which: amount secured	Balance sheet balance	Of which: amount secured	Balance sheet balance	Of which: amount secured		
	NIS millions									
1 Debts, excluding bonds	377,488	20,225	13,779	11,841	5,993	8,384	7,786	-	-	
2 Bonds	47,860	-	-	-	-	-	-	-	-	
3 Total	425,348	20,225	13,779	11,841	5,993	8,384	7,786	-	-	
4 Of which: impaired or in arrears of 90 days or more	3,358	62	45	62	45	-	-	-	-	

### D.5.a. Implementation of external credit ratings

According to the external rating based standardized approach implemented at the Bank, credit-risk weightings are determined by methods including the attribution of exposure to the counterparty to a transaction, as stated in the directive, taking into account the external credit ratings established by external credit assessment institutions (ECAI), which are used for standardized measurement of credit risk.

ECAI ratings are used to determine the risk weights of the following counterparties:

- Sovereigns;
- Public sector;
- Corporations;
- Banking corporations.

In addition, the Bank uses insurance policies of credit-risk insurers with high international ratings to mitigate credit risk, so that the risk weight is based on the ratings of the insurers, rather than on the ratings of the counterparties.

For the purposes of the ratings, the Bank uses data from two rating agencies: Moody's Investor Service and Standard & Poor's Rating Group.

**Table D-16: Mapping of ratings of the major international rating agencies**

	Ratings by rating agencies		Risk weight		
	Moody's	S&P	Corporations	Banks	Sovereign
1	Aaa to Aa3	AAA to AA-	20%	20%	0%
2	A1 to A3	A+ to A-	50%	50%	20%
3	Baa1 to Baa3	BBB+ to BBB-	100%	100%	50%
4	Ba1 to Ba3	BB+ to BB-	100%	100%	100%
5	B1 to B3	B+ to B-	150%	100%	100%
6	Caa1 or lower	CCC+ or lower	150%	150%	150%

During the rating process, customers are identified and the appropriate rating is determined by matching the files of the ECAIs with the data of the counterparties. The data are entered into the calculation system, and the appropriate risk weight is assigned based on the rules established by the Banking Supervision Department. Accordingly, the lower of the credit ratings assigned by either of the two rating agencies noted above is selected.

When there is no rating for the counterparty, the risk weight is calculated according to the defaults defined in the directives of the Bank of Israel.

The risk weight for debts of Israeli banks with an original term to maturity of three months or less, denominated and financed in NIS, is 20%.

The risk weight for banks is determined by the risk weight of the country in which the bank is incorporated, and is one level below the risk weight derived from the sovereign rating.

For investments in issuances that have a specific issuance rating, the risk weight of the debt is based on such rating, except when the issuer is a banking corporation or a public-sector entity. In these cases, the risk weight is based on the issuer rating, rather than on the specific issuance rating.

### D.5.b. Standardized approach – credit risk exposure and effects of credit risk mitigation

Table D-17: Credit risk exposure and effects of credit risk mitigation<sup>(1)</sup>

		December 31, 2019					
		Exposures before CCF and CRM		Exposures after CCF and CRM		RWA and RWA density	
		Balance sheet amount <sup>(2)</sup>	Off-balance sheet amount <sup>(2)</sup>	Balance sheet amount <sup>(3)</sup>	Off-balance sheet amount <sup>(3)</sup>	RWA	RWA density
		NIS millions/percent					
1	Sovereigns, central banks thereof, and national monetary authority	124,241	-	123,421	-	1,274	1.0%
2	Public-sector entities (PSE) other than the central government	3,504	2,329	5,355	825	2,096	33.9%
3	Banks (including multilateral development banks (MDB))	18,535	4,496	17,736	1,550	5,036	26.1%
5	Corporations	88,217	63,082	86,405	25,996	107,927	96.0%
6	Retail exposures to individuals	51,328	23,878	50,245	3,978	40,668	75.0%
7	Loans to small businesses	8,962	3,472	8,344	734	6,808	75.0%
8	Secured by a residential property	88,555	7,271	88,555	1,048	48,918	54.6%
9	Secured by commercial real estate	44,023	65,841	43,740	20,102	63,842	100.0%
10	Loans in arrears <sup>(4)</sup>	3,374	-	3,016	-	3,936	130.5%
11	Other assets	10,735	577	10,735	289	8,518	77.3%
12	Total	441,474	170,946	437,552	54,522	289,023	58.7%

		December 31, 2018					
		Exposures before CCF and CRM		Exposures after CCF and CRM		RWA and RWA density	
		Balance sheet amount <sup>(2)</sup>	Off-balance sheet amount <sup>(2)</sup>	Balance sheet amount <sup>(3)</sup>	Off-balance sheet amount <sup>(3)</sup>	RWA	RWA density
		NIS millions/percent					
1	Sovereigns, central banks thereof, and national monetary authority	117,570	2	116,615	-	1,474	1.3%
2	Public-sector entities (PSE) other than the central government	3,835	3,440	6,034	1,197	2,388	33.0%
3	Banks (including multilateral development banks (MDB))	12,881	1,749	17,340	2,029	5,332	27.5%
5	Corporations	95,860	65,656	92,565	28,643	115,197	95.0%
6	Retail exposures to individuals	65,645	44,931	59,370	5,042	48,309	75.0%
7	Loans to small businesses	9,740	3,755	8,902	754	7,242	75.0%
8	Secured by a residential property	80,326	5,162	80,326	764	44,578	55.0%
9	Secured by commercial real estate	39,980	60,346	39,871	14,789	54,660	100.0%
10	Loans in arrears <sup>(4)</sup>	3,420	-	3,188	-	4,167	130.7%
11	Other assets	12,172	460	11,636	230	9,020	76.0%
12	Total	441,429	185,501	435,847	53,448	292,367	59.8%

(1) The balances in the disclosure include balance sheet and off-balance sheet balances reflecting credit risk, excluding amounts of deferred taxes and investments in financial corporations below deduction thresholds (which are subject to a risk weight of 250%), exposures in respect of counterparty credit risk, and securitization exposures.

(2) The balances reflect the supervisory exposure amounts net of allowances and charge-offs, before credit conversion factors and before credit risk mitigation methods.

(3) The balances reflect the supervisory exposure amounts net of allowances and charge-offs, after credit conversion factors and after credit risk mitigation methods.

(4) Balance sheet and off-balance sheet balances were merged due to immateriality.

### D.5.c. Standardized approach – exposures by asset type and risk weight

Table D-18: Standardized approach – exposures by asset type and risk weight<sup>(1)(2)</sup>

		December 31, 2019								Total amount of credit exposures (after CCF and after CRM)
		0%	20%	35%	50%	60%	75%	100%	150%	
NIS millions										
1	Sovereigns, central banks thereof, and national monetary authority	118,436	4,662	-	-	-	-	285	38	123,421
2	Public-sector entities (PSE) other than the central government	1,858	212	-	4,110	-	-	-	-	6,180
3	Banks (including multilateral development banks (MDB))	17	15,408	-	3,810	-	-	51	-	19,286
5	Corporations	-	4,232	-	2,185	-	-	105,984	-	112,401
6	Retail exposures to individuals	-	-	-	-	-	54,223	-	-	54,223
7	Loans to small businesses	-	-	-	-	-	9,078	-	-	9,078
8	Secured by a residential property	-	-	28,469	25,264	10,202	21,868	3,800	-	89,603
9	Secured by commercial real estate	-	-	-	-	-	-	63,842	-	63,842
10	Loans in arrears	-	-	-	-	-	-	1,177	1,839	3,016
11	Other assets*	2,896	-	-	-	-	-	7,347	781	11,024
11A	* Of which: in respect of shares	-	-	-	-	-	-	1,279	492	1,771
12	Total	123,207	24,514	28,469	35,369	10,202	85,169	182,486	2,658	492,074

(1) The balances in the disclosure include balance sheet and off-balance sheet balances reflecting credit risk, excluding amounts of deferred taxes and investments in financial corporations below deduction thresholds (which are subject to a risk weight of 250%), exposures in respect of counterparty credit risk, and securitization exposures.

(2) The balances reflect the supervisory exposure amounts net of allowances and charge-offs, after credit conversion factors and after credit risk mitigation methods.

Table D-18: Standardized approach – exposures by asset type and risk weight<sup>(1)(2)</sup> (continued)

		December 31, 2018								Total amount of credit exposures (after CCF and after CRM)
		0%	20%	35%	50%	60%	75%	100%	150%	
		NIS millions								
1	Sovereigns, central banks thereof, and national monetary authority	110,991	5,169	-	71	-	-	343	41	116,615
2	Public-sector entities (PSE) other than the central government	2,210	407	-	4,614	-	-	-	-	7,231
3	Banks (including multilateral development banks (MDB))	700	13,459	-	5,138	-	-	72	-	19,369
5	Corporations	-	5,993	-	2,437	-	-	112,778	-	121,208
6	Retail exposures to individuals	-	-	-	-	-	64,412	-	-	64,412
7	Loans to small businesses	-	-	-	-	-	9,656	-	-	9,656
8	Secured by a residential property	-	-	27,717	22,003	3,755	23,971	3,644	-	81,090
9	Secured by commercial real estate	-	-	-	-	-	-	54,660	-	54,660
10	Loans in arrears	-	-	-	-	-	-	1,231	1,957	3,188
11	Other assets*	3,166	-	-	-	-	-	8,060	640	11,866
11A	* Of which: in respect of shares	-	-	-	-	-	-	1,103	410	1,513
12	Total	117,067	25,028	27,717	34,263	3,755	98,039	180,788	2,638	489,295

(1) The balances in the disclosure include balance sheet and off-balance sheet balances reflecting credit risk, excluding amounts of deferred taxes and investments in financial corporations below deduction thresholds (which are subject to a risk weight of 250%), exposures in respect of counterparty credit risk, and securitization exposures.

(2) The balances reflect the supervisory exposure amounts net of allowances and charge-offs, after credit conversion factors and after credit risk mitigation methods.

## **E. Counterparty credit risks**

**Counterparty risk** is defined at the Bank, according to the definition in Proper Conduct of Banking Business Directive 203, as the credit risk arising from transactions in derivative financial instruments. The risk is that the counterparty to the transaction will default before the final settlement of cash flows in the derivative transaction. The market value of the transaction may be positive or negative for any of the parties to the transaction; the market value is not certain, and may change over time and according to movements in the underlying market-risk factors.

### **E.1. Management of counterparty risk**

The goal of the management of this risk is to make it possible to take counterparty risks in an informed manner, through the establishment of a policy, a risk appetite and risk limits, and a risk-assessment methodology. For the activity of Bank counterparties involving derivative financial instruments, the Bank has developed computerized models for assessing and controlling counterparty risk at the transaction level and the customer level. These models allow the Bank to regularly monitor counterparties' financial situation. In this activity, credit exposure at a particular date is defined as the total of the market value of the position plus potential risk of future losses arising from volatility of the underlying assets in the position of the counterparty, taking into account netting and correlation between the transactions; this represents the Bank's potential loss in the event of default by the counterparty.

The potential risk of future loss arising from transactions in derivative financial instruments in respect of the counterparty is measured by applying conservative haircuts to the nominal value of the transactions, or using the scenarios approach, in which the maximum potential exposure of the customer is calculated in a range of different market situations, or using an internal model developed at the Bank. The measurement method is matched to the counterparty, according to the nature of activity in the counterparty's derivatives portfolio and the agreements which the customer has signed with the Bank.

The purpose of these models is to express the exposure to counterparty risk in terms of credit exposure. Credit exposure is managed by the business units, according to a hierarchy of credit authority, and according to the assignment of the customer to the Corporate Banking Division, the Retail Banking Division, or the Financial Markets and International Banking Division. Within those business units, control units exist to monitor exposures against limits and calculate collateral requirements.

Rules and working procedures have been established in order to determine the required level of collateral for such transactions, as well as rules regarding the actions necessary in order to close exposures.

The collateral policy is matched to the nature of activity of the borrower in the area of derivatives, subject to Proper Conduct of Banking Business Directive 330. Counterparty exposure limits are set by the appropriate credit authorities at the Bank.

The Market and Liquidity Risk Management Department in the Risk Management Division serves as the second line of defense, and is responsible for establishing methodology for the assessment of exposure to counterparty risk, instilling this methodology at the Bank, and calculating customers' credit exposure in respect of their activity in the dealing room, both for the purpose of collateral requirements and for the purpose of the allocation of economic capital.

The Bank's policy for activity in derivatives with financial institutions obliged to comply with capital-adequacy requirements is to operate within Credit Support Annex (CSA) agreements, in order to limit exposure. These agreements do not encompass conditions requiring an increase in collateral in the event of a downgrade of a rating. Operational aspects arising from this activity are examined and controlled routinely by a specialized unit.



In order to calculate credit risk exposure in respect of derivative financial instruments in the financial statements, the Bank implements the current exposure method, as established in Proper Conduct of Banking Business Directive 203. To manage and mitigate the risk, the Bank uses techniques that allow netting of derivatives transactions, in accordance with the directive, under the following conditions, among others:

- Existence of a netting contract or agreement with the counterparty creating a single legal obligation covering all of the included transactions, such that the banking corporation has the right to receive, or the obligation to pay, only the net amount of the positive and negative values, marked to market, of the single transactions included in the netting set, in the event that the counterparty fails to meet its obligations due to default, bankruptcy, liquidation, or similar circumstances.
- Existence of written, reasoned legal opinions according to which, if the matter were brought to a legal test, the courts and the relevant administrative agencies would find that the banking corporation's exposure is a net amount, based on:
  - The law in the jurisdiction in which the counterparty is registered, and in the case of involvement of a foreign office of the counterparty, also the law in the jurisdiction in which the office is located;
  - The law applicable to the individual transactions;
  - The law applicable to any contract or agreement necessary in order to execute the actual offset.
- Existence of internal regulations aimed at ensuring that the legal characteristics of netting arrangements are examined in light of the possibility of changes in the relevant law. Among other matters, the regulations shall ensure the performance of recurring legal reviews.
- Existence of internal regulations aimed at ensuring that before the transaction is included in the netting set, the transaction is covered by legal opinions that fulfill the criteria established above.

Exposure to wrong-way risk is examined within the application of stress tests. This risk is reflected when scenario data consistently affect both the size of the exposure and default events.

Scenarios in which a situation may emerge where the Bank is obligated to increase the collateral deposited with counterparties are taken into consideration within the internal liquidity model, in order to ensure sufficient preparedness in the event of materialization of the scenario.

In addition to counterparty credit risk in respect of the risk of default, the Bank is required to allocate capital to cover the risk of credit valuation adjustment (CVA) losses, in respect of expected counterparty risk in over-the-counter (OTC) derivatives.

## E.2. Counterparty risk exposures

Table E-1: Analysis of exposure to counterparty credit risk based on the supervisory approach

		December 31, 2019				December 31, 2018			
		Replacement cost	Potential future exposure	EAD after CRM	RWA	Replacement cost	Potential future exposure	EAD after CRM	RWA
		NIS millions							
1	Present exposure method	2,220	5,580	7,800	5,130	2,886	6,383	9,269	6,449
3	Comprehensive approach to credit risk mitigation (for securities financing transactions (SFT))	-	-	-	-	-	-	-	-
6	Total	2,220	5,580	7,800	5,130	2,886	6,383	9,269	6,449

**Table E-2: Capital allocation in respect of adjustment of revaluation to credit risk**

	December 31, 2019		December 31, 2018	
	EAD after CRM	RWA	EAD after CRM	RWA
	NIS millions			
3 Total portfolios in respect of which CVA is calculated according to the standardized approach	<b>7,800</b>	<b>2,713</b>	9,269	3,327

**Table E-3: Standardized approach – exposures to counterparty credit risk based on the supervisory portfolio and risk weights**

	December 31, 2019				Total credit exposure
	0%	20%	50%	100%	
	NIS millions				
Sovereigns	<b>98</b>	-	-	-	<b>98</b>
Public-sector entities (PSEs) other than the central government	-	-	<b>1,128</b>	-	<b>1,128</b>
Banks (including multilateral development banks (MDB))	-	<b>1,734</b>	<b>722</b>	<b>17</b>	<b>2,473</b>
Corporations	-	-	<b>521</b>	<b>3,351</b>	<b>3,872</b>
Supervisory retail portfolios	-	-	-	<b>19</b>	<b>19</b>
Loans to small businesses	-	-	-	<b>5</b>	<b>5</b>
Secured by commercial real estate	-	-	-	<b>205</b>	<b>205</b>
Other assets	-	-	-	-	-
<b>Total</b>	<b>98</b>	<b>1,734</b>	<b>2,371</b>	<b>3,597</b>	<b>7,800</b>

	December 31, 2018				Total credit exposure
	0%	20%	50%	100%	
	NIS millions				
Sovereigns	17	-	-	-	17
Public-sector entities (PSEs) other than the central government	-	-	1,071	-	1,071
Banks (including multilateral development banks (MDB))	-	2,286	309	42	2,637
Corporations	-	-	570	4,634	5,204
Supervisory retail portfolios	-	-	-	28	28
Loans to small businesses	-	-	-	10	10
Secured by commercial real estate	-	-	-	302	302
Other assets	-	-	-	-	-
<b>Total</b>	<b>17</b>	<b>2,286</b>	<b>1,950</b>	<b>5,016</b>	<b>9,269</b>

**Table E-4: Composition of collateral in respect of exposure to counterparty credit risk**

	December 31, 2019					
	Collateral used in derivatives transactions				Collateral used in securities financing transactions (SFTs)	
	Fair value of collateral received		Fair value of collateral deposited		Fair value of collateral received	Fair value of collateral deposited
	Disconnected	Not disconnected	Disconnected	Not disconnected		
NIS millions						
Cash – local currency	-	15	-	666	-	-
Cash – other currencies	-	835	-	1,632	-	-
Local sovereign debt	-	23	-	-	-	-
Other sovereign debt	-	-	-	-	-	-
Debt of government agency	-	-	-	-	-	-
Corporate bonds	-	-	-	-	-	-
Shares	-	119	-	-	-	-
Other collateral	-	-	-	-	-	-
<b>Total</b>	-	<b>992</b>	-	<b>2,298</b>	-	-

	December 31, 2018					
	Collateral used in derivatives transactions				Collateral used in securities financing transactions (SFTs)	
	Fair value of collateral received		Fair value of collateral deposited		Fair value of collateral received	Fair value of collateral deposited
	Disconnected	Not disconnected	Disconnected	Not disconnected		
NIS millions						
Cash – local currency	-	17	-	193	-	-
Cash – other currencies	-	1,112	-	1,361	-	-
Local sovereign debt	-	71	-	-	-	-
Other sovereign debt	-	-	-	-	-	-
Debt of government agency	-	-	-	-	-	-
Corporate bonds	-	-	-	-	-	-
Shares	-	131	-	-	-	-
Other collateral	-	-	-	-	-	-
<b>Total</b>	-	<b>1,331</b>	-	<b>1,554</b>	-	-

**Table E-5: Exposures to credit derivatives**

The Bank has no exposures to credit derivatives as at December 31, 2019, and as at December 31, 2018.

**Table E-6: Exposures to central counterparties**

	December 31, 2019		December 31, 2018		
	EAD after CRM	RWA	EAD after CRM	RWA	
NIS millions					
1	Exposures to a qualified central counterparty (total)	<b>2,191</b>	<b>332</b>	2,949	500
2	Exposures to transactions with a qualified central counterparty (excluding primary collateral and transfers to a risk fund), of which:	-	-	-	-
3	a. OTC derivatives	-	-	-	-
4	b. Transactions in marketable derivatives on the stock exchange	<b>735</b>	<b>15</b>	855	17
5	c. Securities financing transactions	-	-	-	-
6	d. Netting sets in which netting of products has been approved	-	-	-	-
7	Disconnected primary collateral	-	-	-	-
8	Non-disconnected primary collateral	<b>1,162</b>	<b>23</b>	1,644	33
9	Financed transfers to a risk fund	<b>294</b>	<b>294</b>	450	450
10	Non-financed transfers to a risk fund	-	-	-	-
11	Exposures to an unqualified central counterparty (total)	-	-	-	-
12	Exposures to transactions with an unqualified central counterparty (excluding primary collateral and transfers to a risk fund), of which:	-	-	-	-
13	a. OTC derivatives	-	-	-	-
14	b. Transactions in marketable derivatives on the stock exchange	-	-	-	-
15	c. Securities financing transactions	-	-	-	-
16	d. Netting sets in which netting of products has been approved	-	-	-	-
17	Disconnected primary collateral	-	-	-	-
18	Non-disconnected primary collateral	-	-	-	-
19	Financed transfers to a risk fund	-	-	-	-
20	Non-financed transfers to a risk fund	-	-	-	-

## **F. Market risk**

Market risk is the risk of loss or decline in value as a result of change in the economic value of a financial instrument, or of a particular portfolio, due to changes in prices, rates, spreads, and other market parameters. This includes:

- **Interest-rate risk** – The risk of loss or decline in value as a result of changes in interest rates in the various currencies;
- **Currency risk** – The risk of loss as a result of changes in exchange rates;
- **Inflation risk** – The risk of loss as a result of changes in the curve of CPI expectations;
- **Share price risk** – The risk of loss as a result of changes in stock prices or in stock indices;
- **Credit spread risk** – The risk of loss as a result of change in the spread between the yield to maturity of corporate bonds traded in the markets and the relevant risk-free interest rate;

- **Volatility risk** – The risk of loss as a result of changes in the volatility rates quoted in the market;
- **Basis spread risk** – The risk of loss as a result of changes in the spreads between different interest-rate curves or different interest bases.

The main market risk factors to which the Bank is exposed are NIS interest rates in the linked and unlinked segments, inflation, the NIS/USD exchange rate, and spreads between different interest-rate curves.

## **F.1. Market risk**

### **F.1.a. Management of market risk**

Market risks are managed based on a global view of the Bank's activity in Israel and at its branches abroad, taking into account the activity of subsidiaries with significant exposures for the Group. Market risks are managed separately by each company in the Bank Group, according to policy established by each company's board of directors and in accordance with Group policy. The Bank has set risk limits for the Group that also apply to subsidiaries in which the risk level has been defined as significant for the Group. Market and liquidity risks are assessed and controlled based on a uniform methodology at the Group level, under the direction of the Risk Management Division, taking into account the size of capital and the particular characteristics of the activity of each company. Exposures to market risks of the Bank and the subsidiaries are examined by the Market and Liquidity Risk Management Department in the Risk Management Division, and reported to the Board of Management and the Board of Directors of the Bank at an appropriate frequency based on the risk level.

The Financial Markets and International Banking Division is responsible for the management of exposures to market risks generated as a result of the activity of all of the business units of the Bank. Market risks in the banking book are managed by the Asset and Liability Management Area, and market risks in the trading book are managed by the Dealing Rooms and Brokerage Area. Market risk assessment and the complementary controls are performed in the Risk Management Division, by the Market and Liquidity Risk Management Department, independently and in addition to the monitoring and analysis performed as part of the activity of the Financial Markets and International Banking Division.

Risk limits reflect the Bank's risk appetite for market risks – the level of risk which the Board of Directors and the Board of Management are willing to bear in the course of business operations in order to achieve returns or value. The limits are established by the Board of Directors and fixed in procedures, including, among other things, limits on the sensitivity of the Bank's economic value to changes in the principal risk factors and specific limits for each of the various activities. The Bank's market risk appetite is established in terms of VaR and/or sensitivities and/or scenarios.

Market risk exposures are identified methodically, by collecting information from management systems for trading products and non-trading products. This information is analyzed in order to manage and assess the risk, using advanced automated systems suited to each need, based on commonly accepted pricing models. The models are subject to an orderly validation procedure.

### **F.1.b. Market risk management policy**

Market risk management policy in the Bank Group is reflected in the Group risk-management policy and in quantitative limits; the main limits are described later in this section. Activity in the markets is intended both for hedging of exposures that arise from the Bank's activity and service to its customers, and for managing positions within limits. In principle, market risk management at the Group is aimed at increasing expected profits while maintaining approved, controlled risk levels.

A policy document for treasury risk management in the Group is presented to the Board of Directors for approval each year, within which, among other matters, risk procedures are approved, including limits and authorizations for the various activities; these include an overall framework for the risk estimate in the banking book at Bank Hapoalim, limits on the overall sensitivity of the Bank to risk factors, and risk limits for the various areas of trading activity, activity in the banking book, and investing activity. The document reflects the work plan of the Financial Markets and International Banking Division on this subject. The policy documents address events that require reporting, including a procedure for escalation to the Chief Executive Officer and to the Chairman of the Board of Directors, as relevant, including exceptional developments in the markets or other material events.

**Table F-1: Main limits on exposures to market risks as at December 31, 2019\***

Limit	NIS millions	% of active financial capital
<b>Overall Bank activity</b>		
Overall risk estimate (VaR)	<b>900</b>	
Sensitivity of economic value to parallel changes of 1% in interest-rate curves:		
Unlinked NIS	<b>720</b>	
CPI-linked NIS	<b>1,360</b>	
Foreign currency	<b>500</b>	
Sensitivity to 10% change in NIS/USD exchange rate	<b>500</b>	
Linkage-base exposures by segment:		
CPI-linked NIS		<b>+/-110%</b>
Foreign currency, including foreign-currency linked		<b>+/-30%</b>
<b>Of which: trading book</b>		
Overall risk estimate (VaR)	<b>100</b>	
Sensitivity of economic value to parallel changes of 1% in interest-rate curves:		
Unlinked NIS	<b>120</b>	
CPI-linked NIS	<b>160</b>	
Foreign currency	<b>70</b>	
Sensitivity to 10% change in NIS/USD exchange rate	<b>200</b>	
CPI exposure – net position limit	<b>4,000</b>	
Linkage base exposure: foreign currency, including linked to foreign currency		<b>+/-10%</b>
<b>Income sensitivity in the banking book in Israel</b>		
Sensitivity of annual income to parallel changes of 1% in interest-rate curves:		
Unlinked NIS	<b>1,000</b>	
CPI-linked NIS	<b>300</b>	
Foreign currency	<b>500</b>	

\* At the beginning of 2020, some of the limits were changed, while maintaining the risk-appetite framework.

### **F.1.c. Means for supervision and policy realization**

Activity that generates market risks is under the responsibility of the Board of Management Asset and Liability Management Committee. Policies, including the established limits, are submitted for discussion and approval to the committees of the Board of Management, the committees of the Board of Directors, or the plenum of the Board of Directors, as relevant. Ongoing activity is conducted by subcommittees, with the participation of senior officers of the Bank; one subcommittee is headed by the Head of Financial Markets and International Banking and another is headed by the Head of the Asset and Liability Management Area. A local committee also operates in New York. The committees operate on the basis of resolutions passed by the Board of Directors and by its committees regarding exposure to market risks, subject to the directives issued by the Banking Supervision Department or by the local regulator, as relevant.

The Board of Directors and the Risk Management and Control Committee receive reports on activity, exposures, results of operations, and execution of approved policy, at least once each quarter. These reports include: a review of topics discussed and reported in committees, including main resolutions; main exposures and risk levels utilized out of approved limits; results of operations; summary of events requiring a report, if any have occurred (losses, exceptions from procedures, exceptional events); applications for and approvals of expansion of activities; overview of market risk in the activity of the Bank and at subsidiaries with exposures significant for the Group; and additional reports, as relevant.

### **Risk assessment and control**

First line of defense – the Financial Markets and International Banking Division, branches abroad, and subsidiaries: In addition to risk assessment, examination of results, and routine controls over compliance with limits, operational controls are applied by various units in the Financial Markets and International Banking Division, branches abroad, and subsidiaries. The additional goals of these controls are to examine the correctness, completeness, and congruence of different databases in different reporting systems, and to identify operational errors.

Second line of defense – Risk Management Division: Identification and assessment of risks, control over limits on the extent of risks, and reporting on findings are performed or controlled by the Market and Liquidity Risk Management Department in the Risk Management Division, independently of the routine analyses and reports performed as part of the activity of the first line of defense. The department also performs complementary control over market risks in the Group. The department is responsible for the formulation, maintenance, and routine development of the Group policy and of the methodology for the assessment of market risks in the Bank Group.

### **F.1.d. Market risk assessment methodology**

The methodology used by the Bank to assess market risks has been approved by the Board of Directors and by the Board of Management. This methodology includes VaR calculations and the application of scenarios and stress tests to all trading portfolios and to the banking book. The market risk assessment methodology is congruent with the strategic objectives of the Bank and with the requirements of the Basel Committee, and complies with international standards.

### **VaR assessment methodology**

A risk estimate in terms of VaR in trading activity is calculated at least once daily, for a horizon of ten business days, at a significance level of 99%. The higher of the risk-level outcomes of two commonly accepted risk-assessment methods is considered. The estimate provides a relatively prompt alert of the level of market risk during periods of rising volatility. Full revaluation of the trading book is performed at least once daily, under various scenarios, in order to generate an estimate.

In addition, a backtesting procedure is performed routinely in order to examine the validity of the risk-assessment model in the trading book. The number of deviations is examined based on criteria established in the recommendations of the Basel Committee; up to four deviations in approximately 250 observations annually is considered the "green zone" (at a significance level of 99%). The results of this test are reported annually to the Board of Management and to the Board of Directors. Based on the number of deviations in 2019, the model meets the acceptance criteria established by the Basel Committee. Deviations in the results of the model were examined by the Market and Liquidity Risk Management Department and were found to originate with exceptional volatility in the financial markets.

In addition, risk assessment of activity in the banking book, via the VaR method, is performed on a monthly basis, using the historical method, with a one-month horizon.

### **Limitations of the methodology for assessing risk in trading activity at the Bank**

- The Monte Carlo simulation assumes a normal distribution of risk factors. This assumption does not always apply in reality.
- The historical simulation assumes that the historical behavior of the risk factors will recur in the future, which may not be the case.
- It is not possible to forecast a sudden change in a risk factor using either of the methods.
- With the use of a 99% significance level, losses that could occur beyond that level are ignored.
- The use of a horizon of ten business days implies an assumption that it is possible to hedge and sell positions within ten business days. In special products, in certain market situations, or during crisis periods, liquidity problems in the market may make it impossible to close or fully hedge positions within this timeframe.
- The risk estimate is calculated on positions only a few times in the course of the business day.

To mitigate the effect of these limitations, in addition, stress scenarios are applied in order to examine the potential loss in extreme cases, for all areas of trading activity, as detailed below.

### **Limitations of the methodology for assessing risk in the banking book**

- The credit risk inherent in assets does not constitute a parameter in the calculations made for the purposes of market risk assessment, which focus on quantifying the market risks in the banking book.
- The information used for the risk estimates is assembled from various automated systems.
- Behavioral models are used to reflect the optionality of various products.
- The historical simulation assumes that the historical behavior of the risk factors will recur in the future, which may not be the case.
- With the use of a 99% significance level, losses that could occur beyond that level are ignored.

To mitigate the effect of these limitations, in addition, stress scenarios are applied in order to examine the potential loss in extreme cases, as detailed below, and the effect of a collapse of the behavioral assumptions is tested.



### **Methodology for the application of scenarios and stress tests**

The market risk assessment methodology of the Bank is subject to the Group methodology, and includes the calculation of risk estimates in terms of VaR, as well as the application of scenarios and stress tests to trading portfolios and to the banking book.

- Sensitivity analysis – The sensitivity of the portfolio/activity to the various risk factors is tested by applying scenarios to one risk factor while the other risk factors are held constant. This allows an examination of the effect of the major risk factors on the portfolio. In option portfolios, the combined effect of more than one risk factor is also examined.
- Worst historical scenario based on the history of the last five years, with a horizon of ten business days, calculated for the trading book. Worst historical scenario based on history since 2007, with a horizon of one month, calculated for the banking book and for the Bank as a whole.
- Macro-economic scenarios – Subjective scenarios developed in collaboration with the Economics Department of the Bank, and approved by the Committee on Stress Scenarios. The methodology for the application of stress tests at the Bank is described in Section B.4 above.
- Fixed interest-rate scenarios – A set of scenarios in which the principal interest rates to which the Bank is exposed are stressed through parallel and non-parallel changes.
- Extreme scenarios based on a methodology similar to that used to create VaR scenarios, based on the volatility of risk factors during a period of stress in the markets (stressed VaR).
- Additional scenarios as necessary.

The principles guiding the establishment and application of the scenarios have been approved by the Board of Management Committee and by the Board of Directors.

### **F.2. Market risk in the trading book**

Market risks in the trading book arise from the Bank's activity as a market maker, trader, and manager of positions on its own behalf. In general, this activity is based on dynamic management of positions by means of tradable, liquid financial instruments. Changes in the extent of exposures may be rapid, as a function of changes in the markets and of customers' activity. The extent of exposures can usually be changed quickly and the exposures can be adjusted to the desired position.

The Bank's risk level is measured and controlled according to procedures that include, among other things, limits on the risk estimate in terms of VaR and on the sensitivity of economic value to changes in the primary risk factors. A risk estimate using the VaR (value at risk) method assesses the maximum potential loss to a corporation resulting from the materialization of market risks within a given period of time and at a level of statistical significance predefined by the Bank and approved by the Board of Directors (see the risk estimate methodology above). The VaR estimate for trading activity is performed using a horizon of ten business days, indicating an assumption that it is possible to hedge and sell the positions within ten business days. The main activity limits are described in the section, "Management of market risks," above. Risk assessments as well as limit control of trading positions are performed at least once daily, both by control units within the Financial Markets and International Banking Division and by units in the second line of defense.

Table F-2: Risk estimates of trading activity (VaR)

	<b>December 31, 2019</b>	<b>Average in 2019</b>
	NIS millions	
Total trading in dealing rooms	<b>31</b>	<b>24</b>

	December 31, 2018	Average in 2018
	NIS millions	
Total trading in dealing rooms	22	19

Table F-3: Sensitivity to changes in the exchange rates of foreign currencies with a significant volume of activity and to changes in the consumer price index

	<b>December 31, 2019</b>		December 31, 2018	
	NIS millions			
	10% increase	10% decrease	10% increase	10% decrease
USD	<b>189</b>	<b>68</b>	113	60
EUR	<b>45</b>	<b>26</b>	15	16

	3% increase	3% decrease	3% increase	3% decrease
CPI	<b>355</b>	<b>(483)</b>	263	(455)

The table above presents an analysis of the sensitivity of the economic value of the Bank to changes in exchange rates, based on revaluation of all balance sheet and off-balance sheet instruments in the risk-management system, using prevalent models for revaluation of each instrument and using representative rates as the baseline exchange rate. For the purposes of the calculation, the portfolio is revalued again at an exchange rate reflecting an increase/decrease at the presented rate, with no additional assumptions. Sensitivity to the consumer price index is calculated according to the exposure of the Bank to the index, as detailed in Note 30 to the Financial Statements as at December 31, 2019, plus the effect of the CPI floor on the expected accounting profit.

**Table F-4: Market risk based on the standardized approach**

The Bank is required to allocate capital in respect of market risk assets, on the basis of a standardized model defined by the Bank of Israel. Regulatory capital adequacy is calculated for interest-rate and share risks, as defined above, in the trading book only, and for currency risks in the banking book and in the trading book.

	<b>December 31, 2019</b>	December 31, 2018
	Risk-adjusted assets in NIS millions	
<b>Direct products</b>		
1 Interest-rate risk (general and specific)	<b>2,081</b>	2,302
2 Share position risk (general and specific)	<b>4</b>	82
3 Exchange-rate risk	<b>950</b>	738
4 Commodity risk	-	-
<b>Options</b>		
5 Simplified approach	-	-
6 Delta-plus approach	<b>493</b>	307
7 Scenario approach	-	-
8 Securitization	-	-
9 Total	<b>3,528</b>	3,429

In the area of the activity of Bank customers involving derivative financial instruments, the Bank has developed computerized models for assessing and controlling counterparty credit risk, at the transaction level as well as at the customer level. Counterparty exposure limits are set by the appropriate credit authorities at the Bank. In addition, rules and working procedures have been established in order to determine the required level of collateral for such transactions, as well as rules regarding actions in order to close exposures to customers if necessary. The Bank's policy for activity in derivatives with financial institutions obligated to comply with capital-adequacy requirements is to operate within Credit Support Annex (CSA) agreements, in order to limit exposure. For additional information regarding counterparty credit exposures and the management thereof, see the section "Counterparty credit risk," above.

### **F.3. Interest-rate risk in the banking book**

Interest-rate risk in the banking book refers to the potential effect of changes in the various interest-rate curves on the economic value of the Bank (i.e. change in the present value of assets and liabilities) and/or on net interest income (accounting income sensitivity). The risk emerges during the routine and proactive banking activity of the Bank, as a result of the provision of routine services to the general public and to the business and financial sectors, and from other activities; this includes interest-rate exposure arising from the management of the investment portfolio. The risk arises from differences in the structure of assets and liabilities – gaps between segments, durations, interest bases, interest-rate renewal dates, and more. Limits apply at the Bank both to the sensitivity of economic value and to the sensitivity of income (including financial subsidiaries under the Bank's management and subsidiaries with exposure significant for the Group) to scenarios of change in the shekel, CPI-linked, and foreign-currency interest-rate curves.

In calculating the exposure of the Bank to changes in interest rates in terms of economic value and fair value, the Bank calculates the effect of the change in the interest rate on all financial assets and liabilities, using the following models:

- Current-account model – Based on a statistical model and estimates, the Bank treats part of the positive current-account balances as stable and distributes them as liabilities over a longer period than the contractual maturity period.
- Mortgage early repayment model – The model includes assumptions regarding early repayment in respect of housing loans, according to the estimates of the Bank, supported by a statistical model based on historical analysis and additional assumptions.

These models are examined periodically and updated to reflect changes in the market and management estimates.

The table below presents an analysis of the sensitivity of the Bank's economic value to changes in interest-rate curves, based, among other factors, on the discounting of expected cash flows by interest-rate curves that do not take into account the credit risk spread of the counterparty, with the use of internal models for some products. This differs from the calculation in fair-value tables, which is based on factors including the discounting of expected cash flows by a discount rate also reflecting the risk level inherent in the financial instrument, taking into consideration liabilities to employees, which are not used by the Bank in the management of economic value sensitivity. Pursuant to the Public Reporting Directives of the Bank of Israel, the Bank applies hypothetical shock and stress scenarios of changes in interest rates to the adjusted net fair value of the financial instruments used by the Bank. The stress scenarios are calculated according to formulas defined in the BOI reporting requirements. The required scenarios are steepening (a decrease in the short-term interest rate and an increase in the long-term interest rate), flattening (an increase in the short-term interest rate and a decrease in the long-term interest rate), an increase in the short-term interest rate, and a decrease in the short-term interest rate. The scenarios were applied uniformly to all of the currencies included in the report to the public.

Income sensitivity in the table above was calculated by changing interest-rate curves, using assumptions regarding changes in deposit spreads; assumptions of transfer of monies from current accounts to deposits in the case of an increase in the interest rate, versus stability of balances in the case of a decrease in the interest rate; and assumption of interest-rate floors, such that the various interest-rate curves fall to zero. In the foreign-currency segment, the interest-rate curve falls to the lower of zero or the existing negative interest rate. In some of the scenarios, the theoretical loss in the event of a negative interest rate (below the floor) may be higher. The sensitivity of the trading book was calculated using the MTM approach.

Income sensitivity differs from value sensitivity in that it does not include changes in the discounted value of long-term assets and liabilities that are not measured in the profit and loss report on a fair-value basis.

Interest-rate risk management policy is aimed, in congruence with the objectives of the Bank, at achieving the desired structure of exposures in each segment (unlinked shekel; CPI-linked shekel; foreign currency and foreign-currency-linked), in accordance with estimates concerning market variables, and subject to limits. Sensitivity to interest rates is measured, in a controlled manner, at least once each month, with more frequent measurements for exposure management purposes. In general, the goal of interest-rate risk management in the Group is to allow service to customers while taking controlled risks.

Interest-rate risk in the banking book (non-trading market risk) at Bank Hapoalim is managed in the Financial Markets and International Banking Division by the Asset and Liability Management Area, and separately by each subsidiary in the Bank Group, according to policy established by each company's board of directors and in accordance with Group policy. The risk is assessed and controlled based on a uniform methodology at the Group level, under the direction of the Risk Management Division and the Financial Markets Division, taking into account the size of capital and the unique characteristics of the activity of each subsidiary. The subsidiaries' exposure to risk is examined by units at the Head Office and reported to the Board of Management and the Board of Directors of the Bank at an appropriate frequency based on the risk level. The Bank has set risk limits for the Group that also apply to subsidiaries with a risk level which has been defined as significant for the Group.

Interest-rate risk exposures are identified methodically, by collecting information from product management systems. This information is analyzed in order to manage and assess the risk, using advanced automated systems adapted to each need, based on commonly accepted models. The models are subject to an orderly validation procedure.

In the banking book in Israel, flows arising from assets and liabilities are generated and analyzed by a designated interest-rate risk management system for all banking products, according to interest-rate change dates. Data are also received in separate files from the New York branch and from the subsidiaries with exposure significant for the Group. Concurrently, sensitivity calculations are performed at the Market and Liquidity Risk Management Department in the Risk Management Division, using the risk-management system. Tools for the management and hedging of exposures in the banking book include pricing policy, bond portfolio management, issuance of debt instruments, off-balance sheet transactions, and more. The Bank's management of non-trading exposures is based, among other things, on forecasts and working assumptions regarding expected developments in financial and capital markets in Israel and worldwide. The Bank uses derivatives and applies hedge accounting rules to hedge part of the interest-rate sensitivity of long-term bonds in foreign currency. The effect of transactions executed in the markets is examined on a weekly basis by the Asset and Liquidity Management Area; the change in economic value arising from changes in markets on the banking book, including hedges, is examined on a monthly basis.

**Table F-5: Adjusted\* net fair value of the financial instruments of the Bank and its consolidated companies**

	December 31, 2019					December 31, 2018 <sup>(1)</sup>				
	Unlinked NIS	CPI-linked NIS	Foreign currency – USD	Foreign currency – other	Total	Unlinked NIS	CPI-linked NIS	Foreign currency – USD	Foreign currency – other	Total
	NIS millions									
Financial assets**	<b>323,633</b>	<b>50,697</b>	<b>58,409</b>	<b>10,977</b>	<b>443,716</b>	313,939	49,240	63,595	11,526	438,300
Other amounts receivable in respect of derivative, hybrid, and off-balance sheet financial instruments	<b>431,288</b>	<b>19,575</b>	<b>269,874</b>	<b>63,047</b>	<b>783,784</b>	410,823	20,675	491,265	55,809	978,572
Financial liabilities**	<b>270,294</b>	<b>39,823</b>	<b>83,705</b>	<b>14,532</b>	<b>408,354</b>	265,737	41,949	83,531	15,145	406,362
Other amounts payable in respect of derivative, hybrid, and off-balance sheet financial instruments	<b>459,513</b>	<b>20,318</b>	<b>246,843</b>	<b>58,070</b>	<b>784,744</b>	433,474	20,029	472,939	51,272	977,714
Net fair value of financial instruments	<b>25,114</b>	<b>10,131</b>	<b>(2,265)</b>	<b>1,422</b>	<b>34,402</b>	25,551	7,937	(1,610)	918	32,796
Effect of employee benefit liabilities	<b>(4,918)</b>	-	-	-	<b>(4,918)</b>	(4,127)	-	-	-	(4,127)
Effect of spreading over periods of on-demand deposits	<b>1,856</b>	-	<b>1,124</b>	<b>101</b>	<b>3,081</b>	3,610	-	1,629	183	5,422
Adjusted net fair value*	<b>22,052</b>	<b>10,131</b>	<b>(1,141)</b>	<b>1,523</b>	<b>32,565</b>	25,034	7,937	19	1,101	34,091
Of which: banking book	<b>22,289</b>	<b>10,018</b>	<b>(1,622)</b>	<b>1,327</b>	<b>32,012</b>	25,620	7,202	(170)	911	33,563

\* Net fair value of financial instruments, excluding non-monetary items, and after the effect of employee benefit liabilities and spreading over periods of on-demand deposits. For further details regarding the assumptions used to calculate the fair value of financial instruments, see Note 32 to the Financial Statements.

\*\* Excluding balance sheet balances of derivative financial instruments, fair value of off-balance sheet financial instruments, and fair value of hybrid financial instruments.

(1) Includes balances attributed to a discontinued operation.

**Table F-6: Effect of scenarios of changes in interest rates on the adjusted\* net fair value of the Bank and its consolidated companies**

	December 31, 2019					December 31, 2018 <sup>(1)</sup>				
	Unlinked NIS	CPI-linked NIS	Foreign currency – USD	Foreign currency – other	Total	Unlinked NIS	CPI-linked NIS	Foreign currency – USD	Foreign currency – other	Total
NIS millions										
<b>Parallel changes</b>										
1% parallel increase	<b>554</b>	<b>(498)</b>	<b>37</b>	<b>52</b>	<b>145</b>	771	(356)	142	69	626
Of which: banking book	<b>544</b>	<b>(509)</b>	<b>54</b>	<b>52</b>	<b>141</b>	782	(341)	158	69	668
1% parallel decrease	<b>(570)</b>	<b>551</b>	<b>(33)</b>	<b>(63)</b>	<b>(115)</b>	(798)	409	(178)	(92)	(659)
Of which: banking book	<b>(561)</b>	<b>563</b>	<b>(41)</b>	<b>(64)</b>	<b>(103)</b>	(837)	391	(146)	(92)	(684)
<b>Non-parallel changes</b>										
Steepening <sup>(2)</sup>	<b>(158)</b>	<b>(181)</b>	<b>(162)</b>	<b>24</b>	<b>(477)</b>	91	(292)	37	82	(82)
Of which: banking book	<b>(134)</b>	<b>(192)</b>	<b>(203)</b>	<b>25</b>	<b>(504)</b>	86	(276)	38	82	(70)
Flattening <sup>(3)</sup>	<b>291</b>	<b>78</b>	<b>143</b>	<b>(14)</b>	<b>498</b>	1	123	10	(42)	92
Of which: banking book	<b>260</b>	<b>87</b>	<b>203</b>	<b>(15)</b>	<b>535</b>	11	111	27	(42)	107
Increase in short-term interest rate	<b>455</b>	<b>(146)</b>	<b>88</b>	<b>(4)</b>	<b>393</b>	303	(181)	98	80	300
Of which: banking book	<b>419</b>	<b>(143)</b>	<b>161</b>	<b>(6)</b>	<b>431</b>	313	(184)	116	81	326
Decrease in short-term interest rate	<b>(476)</b>	<b>136</b>	<b>(92)</b>	<b>3</b>	<b>(429)</b>	(412)	134	(99)	(108)	(485)
Of which: banking book	<b>(447)</b>	<b>133</b>	<b>(155)</b>	<b>4</b>	<b>(465)</b>	(413)	138	(100)	(109)	(484)

\* Net fair value of financial instruments, excluding non-monetary items, and after the effect of employee benefit liabilities and spreading over periods of on-demand deposits.

(1) Includes balances attributed to a discontinued operation.

(2) Steepening – decrease in the short-term interest rate and increase in the long-term interest rate.

(3) Flattening – increase in the short-term interest rate and decrease in the long-term interest rate.

**Table F-7: Sensitivity of the economic capital of the Bank to parallel changes in interest-rate curves (theoretical change in economic value as a result of each scenario)**

	December 31, 2019			December 31, 2018		
	Unlinked NIS	CPI-linked NIS	Foreign currency	Unlinked NIS	CPI-linked NIS	Foreign currency
	NIS millions					
<b>Parallel changes</b>						
1% parallel increase	<b>(319)</b>	<b>(855)</b>	<b>106</b>	239	(506)	275
1% parallel decrease	<b>410</b>	<b>987</b>	<b>(98)</b>	(242)	592	(297)

The sensitivity of economic capital to a parallel change in the unlinked NIS curves changed, in 2019, mainly due to an increase in mortgage granting and purchases of government bonds. Sensitivity to a parallel increase in the linked interest rate also increased, due to the increase in mortgage granting and shorter-term issuance by the Bank.

The difference between economic value sensitivity and fair value sensitivity as at December 31, 2019, mainly stems from the use of different discount curves, as described above, the effect of which is estimated at approximately NIS 0.3 billion in the unlinked segment and approximately NIS 0.3 billion in the CPI-linked segment. In addition, an amount of approximately NIS 0.4 billion in the unlinked NIS segment originates with the discounting of employee liabilities in the fair-value model, which are not used by the Bank in the management of economic value sensitivity.

**Table F-8: Effect of scenarios of changes in interest rates on interest income**

	December 31, 2019			December 31, 2018		
	Interest income	Non-interest financing income	Total	Interest income	Non-interest financing income	Total
	NIS millions					
1% parallel increase	<b>924</b>	<b>327</b>	<b>1,251</b>	838	522	1,360
Of which: banking book	<b>924</b>	<b>323</b>	<b>1,247</b>	838	552	1,390
1% parallel decrease	<b>(746)</b>	<b>(406)</b>	<b>(1,152)</b>	(596)	(563)	(1,159)
Of which: banking book	<b>(746)</b>	<b>(395)</b>	<b>(1,141)</b>	(596)	(575)	(1,171)



Table F-9: Total exposure of the Bank and its consolidated companies to changes in interest rates

	December 31, 2019				
	On demand up to 1 month	Over 1 month up to 3 months	Over 3 months up to 1 year	Over 1 year up to 3 years	Over 3 years up to 5 years
NIS millions					
<b>Reported amounts</b>					
Financial assets <sup>(1)</sup>	283,655	24,537	29,303	35,944	30,713
Other amounts receivable <sup>(2)</sup>	222,968	221,041	157,390	86,683	56,529
Financial liabilities <sup>(1)</sup>	243,144	16,523	59,394	36,104	24,754
Other amounts payable <sup>(2)</sup>	220,961	216,604	149,139	90,551	60,295
Exposure to changes in interest rates	42,518	12,451	(21,840)	(4,028)	2,193
<b>Additional details of exposure to changes in interest rates</b>					
<b>a. By nature of activity</b>					
Exposure in the banking book	49,870	14,161	(33,582)	(3,320)	2,753
Exposure in the trading book	(7,352)	(1,710)	11,742	(708)	(560)
<b>b. By linkage base</b>					
Israeli currency unlinked	45,251	4,736	(19,408)	(7,428)	(1,728)
Israeli currency CPI-linked	865	(213)	845	2,539	5,800
Foreign currency (including foreign currency linked)	(3,598)	7,928	(3,277)	861	(1,879)
<b>c. Effects on exposure to changes in interest rates</b>					
Effect of employee benefit liabilities	-	(109)	(310)	(939)	(666)
Effect of spreading over periods of on-demand deposits	62,239	-	(20,533)	(12,152)	(11,763)
Effect of early repayments of housing loans	537	907	2,665	(1,457)	(1,847)

\* Reclassified.

\*\* Average weighted by fair value of effective average duration.

(1) Excluding balance sheet balances of derivative financial instruments, fair value of off-balance sheet financial instruments, and fair value of compound financial instruments. After the effect of spreading over periods of on-demand deposits.

(2) Amounts receivable and payable in respect of derivative, hybrid, and off-balance sheet financial instruments, after the effect of employee benefit liabilities.

(3) Includes balances attributed to a discontinued operation.

**General notes**

A. Further details regarding the exposure to changes in the interest rate in each segment of the financial assets and financial liabilities, according to the various balance sheet items, will be provided upon request.

B. In this table, the data by period represent the present value of future cash flows of each financial instrument (excluding non-monetary items) and of other amounts receivable and payable, after the effect of employee benefit liabilities and of the spreading over periods of on-demand deposits, as explained in footnote 3 below, capitalized at the interest rates discounting them to the fair value included in respect of the financial instrument in Note 32 to the Financial Statements, in consistency with the assumptions used to calculate the fair value of the financial instrument.

C. The present value of cash flows arising from on-demand deposits was calculated according to the assumptions regarding terms to maturity used by the Bank in interest-rate risk management.

D. The internal return rate is the interest rate for discounting of the expected cash flows from the financial instrument to the fair value included in respect thereof in Note 32 to the Financial Statements.

E. The effective average duration of a group of financial instruments constitutes an approximation of the change, in percent, in the fair value of the group of financial instruments which would be caused by a small change (an increase of 0.1%) in the internal return rate of each of the financial instruments.

December 31, 2019							December 31, 2018 <sup>(5)</sup>		
Over 5 years up to 10 years	Over 10 years up to 20 years	Over 20 years	No maturity period	Total fair value	Internal rate of return	Effective average duration	Total fair value*	Internal rate of return	Effective average duration
NIS millions							NIS millions	%	Years
<b>26,140</b>	<b>7,869</b>	<b>1,116</b>	<b>6,871</b>	<b>446,148</b>	<b>2.36%</b>	<b>1.18</b>	441,682	3.26%	1.02
<b>37,469</b>	<b>1,590</b>	<b>113</b>	<b>646</b>	<b>784,429</b>		<b>0.91</b>	979,668		0.89
<b>23,085</b>	<b>2,253</b>	-	<b>686</b>	<b>405,943</b>	<b>1.00%</b>	<b>1.02</b>	402,788	1.94%	1.01
<b>48,390</b>	<b>3,128</b>	<b>592</b>	<b>646</b>	<b>790,306</b>		<b>1.05</b>	982,937		*0.99
<b>(7,866)</b>	<b>4,078</b>	<b>637</b>	<b>6,185</b>	<b>34,328</b>			35,625		
<b>(7,195)</b>	<b>4,210</b>	<b>693</b>	<b>6,193</b>	<b>33,783</b>		<b>** (0.51)</b>	35,076		<b>** (2.42)</b>
<b>(671)</b>	<b>(132)</b>	<b>(56)</b>	<b>(8)</b>	<b>545</b>		<b>** (0.72)</b>	549		<b>** 7.95</b>
<b>(5,513)</b>	<b>2,317</b>	<b>25</b>	<b>3,800</b>	<b>22,052</b>		<b>** (3.04)</b>	25,034		<b>** (3.59)</b>
<b>(2,239)</b>	<b>1,873</b>	<b>611</b>	<b>50</b>	<b>10,131</b>		<b>** 4.94</b>	7,939		<b>** 4.62</b>
<b>(114)</b>	<b>(112)</b>	<b>1</b>	<b>572</b>	<b>382</b>		<b>** (23.30)</b>	1,118		<b>** (18.84)</b>
<b>(1,238)</b>	<b>(1,233)</b>	<b>(423)</b>	-	<b>(4,918)</b>	<b>0.81%</b>	<b>8.55</b>	(4,127)	1.98%	8.54
<b>(14,710)</b>	-	-	-	<b>3,081</b>	<b>1.81%</b>	<b>1.04</b>	5,422	1.75%	1.10
<b>64</b>	<b>(379)</b>	<b>(202)</b>	-	<b>288</b>	<b>(0.04%)</b>	<b>(0.07)</b>	107	(0.03%)	(0.06)

#### **F.4. Share and credit spread risk – investment risk**

Investment risk is defined at the Bank as exposure to the stock market, to credit spreads, and to credit risk in the bond and stock markets in the banking book of the Group (as a result of holdings in these products, the Bank may also be exposed to interest-rate risks and/or currency risks and/or liquidity risks, which are managed separately). According to the definition at the Bank, Israeli government bonds in NIS and in foreign currency and government bonds of the country in which a branch/subsidiary operates, held by the branch/subsidiary, do not bear investment risk, and are therefore not included in the measurement of investment risk at the Bank.

Investment risk arises at the Group in three frameworks:

1. An investment portfolio managed under the responsibility of the Financial Markets and International Banking Division. In general, these investments are performed through tradable securities.
2. Non-tradable investments, usually performed through the subsidiary Poalim Capital Markets (PCM), according to policy established periodically by the board of directors of PCM, in conformity with the policy of the Group.
3. Affiliates: strategic holdings in shares of subsidiaries. For details, see Note 15 to the Financial Statements.

The Group holds shares and bonds, primarily for investment purposes, a decrease in the value of which may damage the profit and loss of the Bank and/or the capital of the Bank.

##### **F.4.a. Management of investment risk in the portfolio under management**

Investment portfolio management at the Bank by the Financial Markets and International Banking Division is a tool for the management of liquidity surpluses, and an additional tool for the management of exposures to interest rates, linkage bases, and liquidity in the banking book. In general, the investment portfolio consists of products traded on the financial markets, for which price quotes can be obtained.

The investment framework was established from a global, systemic perspective, with the approval of the Board of Directors of the Bank, and includes limits on the volume of the investment and on risk indicators, including limits on risk appetite and on risk capacity in terms of stress scenarios, and individual limits for the various investment segments, including volume limits by type, geographical diversification limits, rating limits, and more. Investments are performed through specified permitted instruments.

Risk is managed under the overarching responsibility of the Financial Markets and International Banking Division, with respect to the implementation of policy in the Group, allocation of the limits approved by the Board of Management and Board of Directors, monitoring, guidance, and reporting. Management in practice is performed by the Nostro Investment Management Unit in the Financial Markets and International Banking Division, using dedicated systems. In addition, investment activity is permitted at a limited number of subsidiaries. Managerial responsibility for the activity of each subsidiary rests with the member of the Board of Management who oversees that company.

In the second line of defense, the Market and Liquidity Risk Management Department in the Risk Management Division is responsible for formulating methodology for the assessment of investment risks and for independent risk assessment and control. This department also challenges the business function and provides an independent review, pursuant to Proper Conduct of Banking Business Directive 311, prior to material investments.

This activity is subject to all relevant directives and laws in this area, in Israel and in the country in which the branch/subsidiary conducting the activity is located. Due to the complexity of the regulatory directives, specific regulatory procedures have been established for this activity.

Investment risks are identified and measured methodically, by collecting information from the Bank's systems. This information is analyzed using the Bank's risk-management systems, and reported periodically to the committees of the Board of Management and of the Board of Directors.

In general, shares at the Bank are classified in accounting as "shares not held for trading," and accounted for as follows: shares with readily available fair value are measured at fair value on the reporting date; profits and losses from adjustments to fair value are allocated to the statement of profit and loss. Shares with no readily available fair value are measured at cost net of impairment, if any, plus or minus observable price changes in ordinary transactions for identical or similar investments of the same issuer. Unrealized profits or losses from adjustments to such observable price changes are allocated to the statement of profit and loss.

Each reporting period, the Board of Management of the Bank determines whether decreases in the fair value of securities classified into the available-for-sale portfolio are other than temporary. This examination consists of several stages and principles, as noted in Note 1E, Section 8b in the Financial Statements. When other-than-temporary impairment occurs in a security, the cost of the security is written down to its fair value at the balance sheet date and used as the new cost base. The amount of the write-down is charged to profit and loss. Impairments in respect of shares without readily determinable fair value are accounted for as noted in Note 1E, Section 8c in the Financial Statements.

#### F.4.b. Positions in shares in the investment portfolio

**Table F-10: Details of the Bank Group's investments in shares in the banking book, by balance sheet classification**

	December 31, 2019		December 31, 2018	
	Balance sheet value	Capital requirements <sup>(1)</sup>	Balance sheet value	Capital requirements <sup>(1)</sup>
	NIS millions			
Investments classified into the trading portfolio	<b>2</b>	<sup>(2)</sup> <b>1</b>	41	<sup>(2)</sup> 12
Investments in shares not held for trading	<b>1,771</b>	<b>278</b>	1,513	237
<b>Total investments in shares</b>	<b>1,773</b>	<b>279</b>	1,554	249
Of which: Traded on a stock exchange	<b>752</b>		534	
Privately held	<b>1,021</b>		1,020	
Unrealized gains (losses) included in supervisory capital	-		(16)	

(1) The capital requirements were calculated in accordance with the minimum total capital ratio required by the Banking Supervision Department, at 13.77% as at December 31, 2019, and 13.74% as at December 31, 2018. The required minimum total capital ratio is 13.5%. A capital requirement at a rate representing 1% of the balance of housing loans at the dates of the financial statements was added to this ratio.

(2) Including capital allocation with respect to specific market risk and general market risk.

For details regarding investments of the Bank, see Note 12 to the Financial Statements as at December 31, 2019. For details regarding the effect of the spread of the coronavirus, see the section "Additional matters," above, and Note 36 to the Financial Statements.

## **G. Liquidity risk**

**Liquidity risk** – Liquidity risk is defined as present or future risk to the stability and profits of the Bank arising from an inability to sustain the cash flow required for its needs. Liquidity risk at the Bank is examined from a broader perspective, encompassing the ability to repay liabilities on schedule, including during times of stress, without damage to routine operations within the business plans of the Bank and without incurring exceptional losses.

**Refinancing risk** – The risk of inability to raise new resources to replace resources that have matured, or the risk that the reissue may be performed at durations and terms that damage the Bank's net interest income. This risk is managed as part of liquidity risk. In light of the financing sources of the Bank, the Bank does not view this risk as a material risk in its own right. The Bank accords high importance to raising resources that are stable and highly diversified.

**Table G-1: Liquidity coverage ratio – limited banking corporation and consolidated subsidiaries, for the three-month period**

	<b>For the quarter ended December 31, 2019</b>	
	Total unweighted value*	Total weighted value**
<b>Total high-quality liquid assets</b>		
Total high-quality liquid assets (HQLA)		<b>109,137</b>
<b>Cash outflows</b>		
Retail deposits from individuals and from small business customers, of which:	<b>199,825</b>	<b>15,097</b>
Stable deposits	<b>65,896</b>	<b>3,295</b>
Less stable deposits	<b>94,148</b>	<b>10,609</b>
Deposits for a period greater than 30 days (Section 84 of Proper Conduct of Banking Business Directive 221)	<b>39,781</b>	<b>1,193</b>
Unsecured wholesale financing, of which:	<b>112,954</b>	<b>71,819</b>
Operational deposits (all counterparties) and deposits in networks of cooperative banks	<b>1,996</b>	<b>499</b>
Non-operational deposits (all counterparties)	<b>110,479</b>	<b>70,841</b>
Unsecured debts	<b>479</b>	<b>479</b>
Secured wholesale financing	<b>4</b>	<b>-</b>
Additional liquidity requirements, of which:	<b>93,378</b>	<b>20,440</b>
Outflows related to derivative exposure and other collateral requirements	<b>11,341</b>	<b>10,740</b>
Outflows related to loss of funding on debt products	<b>-</b>	<b>-</b>
Credit and liquidity facilities	<b>82,037</b>	<b>9,700</b>
Other contractual funding obligations	<b>4,345</b>	<b>4,345</b>
Other contingent funding obligations	<b>53,023</b>	<b>1,774</b>
Total cash outflows		<b>113,475</b>
<b>Cash inflows</b>		
Secured lending (e.g. reverse repos)	<b>332</b>	<b>331</b>
Inflows from fully performing exposures	<b>20,734</b>	<b>12,578</b>
Other cash inflows	<b>15,538</b>	<b>10,421</b>
Total cash inflows	<b>36,604</b>	<b>23,330</b>
		Total adjusted value****
Total high-quality liquid assets (HQLA)		<b>109,137</b>
Total net cash outflows		<b>90,145</b>
Liquidity coverage ratio (%)		<b>121%</b>

\* Unweighted values were calculated as outstanding balances maturing or callable within 30 days (for inflows and outflows), based on an average of daily observations.

\*\* Weighted values were calculated after the application of respective haircuts or inflow and outflow rates (for inflow and outflow), based on an average of daily observations. The number of observations used to calculate the averages in the reported quarter is 58.

\*\*\* Adjusted values were calculated after the application of: (1) haircuts and inflow and outflow rates; and (2) any applicable caps (i.e. caps on level 2B and level 2 assets for HQLA and a cap on inflows).

**Table G-1: Liquidity coverage ratio – limited banking corporation and consolidated subsidiaries, for the three-month period (continued)**

	For the quarter ended December 31, 2018*	
	Total unweighted value**	Total weighted value***
<b>Total high-quality liquid assets</b>		
Total high-quality liquid assets (HQLA)		106,375
<b>Cash outflows</b>		
Retail deposits from individuals and from small business customers, of which:	195,062	15,032
Stable deposits	63,494	3,175
Less stable deposits	93,346	10,710
Deposits for a period greater than 30 days (Section 84 of Proper Conduct of Banking Business Directive 221)	38,222	1,147
Unsecured wholesale financing, of which:	107,845	69,011
Operational deposits (all counterparties) and deposits in networks of cooperative banks	1,738	435
Non-operational deposits (all counterparties)	105,776	68,245
Unsecured debts	331	331
Secured wholesale financing	8	-
Additional liquidity requirements, of which:	118,042	27,613
Outflows related to derivative exposure and other collateral requirements	19,765	17,957
Outflows related to loss of funding on debt products	-	-
Credit and liquidity facilities	98,277	9,656
Other contractual funding obligations	15,827	15,827
Other contingent funding obligations	55,580	1,834
Total cash outflows		129,317
<b>Cash inflows</b>		
Secured lending (e.g. reverse repos)	894	894
Inflows from fully performing exposures	29,486	22,556
Other cash inflows	21,795	17,352
Total cash inflows	52,175	40,802
		Total adjusted value****
Total high-quality liquid assets (HQLA)		106,375
Total net cash outflows		88,515
Liquidity coverage ratio (%)		120%

\* Includes balances attributed to a discontinued operation.

\*\* Unweighted values were calculated as outstanding balances maturing or callable within 30 days (for inflows and outflows), based on an average of daily observations.

\*\*\* Weighted values were calculated after the application of respective haircuts or inflow and outflow rates (for inflow and outflow), based on an average of daily observations. The number of observations used to calculate the averages in the reported quarter is 58.

\*\*\*\* Adjusted values were calculated after the application of: (1) haircuts and inflow and outflow rates; and (2) any applicable caps (i.e. caps on level 2B and level 2 assets for HQLA and a cap on inflows).

The Bank calculates its stand-alone and consolidated liquidity ratios daily, with a division into NIS and foreign currency, and monitors this ratio at its subsidiaries (which are required to comply with internal liquidity limits adapted to the nature of their activity). These ratios are reported as an average of the daily observations. The number of observations used to calculate the averages in the reported quarter is 58.

The average ratio during the quarter (the average of the daily observations) is 121%, consolidated, and 120% for the stand-alone banking corporation, while the minimum requirement is 100%. This ratio decreased during the fourth quarter of 2019, in comparison to the preceding quarter. The decrease in the ratio mainly resulted from a change in the composition of deposits and from maturity of securities issued by the Bank. There is some volatility from day to day during the month, and some interchange between NIS and foreign currency, mainly due to activity in derivatives.

The liquid assets of the Bank mainly consist of Israeli government bonds in NIS and in foreign currency, US government bonds in foreign currency, and deposits with central banks (the Bank of Israel and the Federal Reserve). Part of the liquid assets are held by the Bank, and part are held by the subsidiaries. The Bank takes into consideration possible restrictions on the transfer of liquidity between some subsidiaries and the Bank itself, particularly banking subsidiaries overseas. Accordingly, some of the subsidiaries hold liquid assets for times of crisis (or a credit line from the parent company), according to need, and the Bank does not rely on these assets. The Bank manages the liquidity coverage ratio, and accordingly its liquid assets, with a separation of NIS and foreign currencies. For details of liquid assets by level, see the table below. The Board of Directors of the Bank has adopted an internal limit stricter than the regulatory LCR requirement, both for the stand-alone banking corporation and consolidated.

The main source of funding of the Bank is deposits from retail customers and small businesses in Israel, which generate low liquidity risk relative to other resources. In addition, the Bank obtains financing through issues, deposits from corporate and financial companies, and more. Funding in foreign currency includes deposits from private customers and from corporate clients in Israel, foreign residents, Israeli companies abroad, issues of CDs and other instruments secured by the FDIC in the United States, and additional resources. Deposits from corporate and financial entities with a maturity date of up to one month are subject to high outflow coefficients, pursuant to the directive, and therefore have a relatively large contribution to cash outflow. The Bank monitors the concentration of funding sources, in various breakdowns, in both NIS and foreign currency, and complies with the internal limits in this area. The Bank does not rely on funding from the capital market as a major financing source.

Derivatives create a large inflow and a large outflow, and lead to redirection of liquid assets and net cash outflow between NIS and foreign currency, but their net contribution in all currencies is low. In the calculation of liquid assets, the Bank does not include collateral which it is required to deposit against derivatives activity; volatility in the volume of this deposit is taken into consideration, as required in the directive.



Liquidity and refinancing risks are managed based on a global view of the Bank's activity in Israel, at its overseas branches, and at subsidiaries with significant liquidity risk for the Group. Liquidity risk at the Bank, in foreign currency and in NIS, is managed and controlled routinely at the Asset and Liability Management Area, in accordance with Group policy, with the aim of ensuring the ability to cope competitively even in exceptional supply and demand situations in the financial markets. Current liquidity management is under the responsibility of the Asset and Liability Management Area, and is executed through NIS and foreign-currency liquidity units, and through corresponding units at the subsidiaries. Reports to Board of Management committees are submitted on a monthly basis; reports to Board of Directors committees are submitted on a quarterly basis. Additional reports to internal functions for monitoring and management purposes are submitted more frequently. The business plan of the Bank takes expected business changes, future liquidity requirements, and future liquidity risks into consideration, in order to ensure that the Bank continues to comply with all limits. The Market and Liquidity Risk Management Department in the Risk Management Division routinely monitors liquidity using internal and environmental parameters, independently reports the risk level to the committees of the Board of Management and the Board of Directors, and challenges the parameters in the various models related to liquidity.

In addition to the measurement of the liquidity ratio according to Proper Conduct of Banking Business Directive 221, as described above, the Bank applies additional tools and monitors additional indicators of liquidity risk. In accordance with Proper Conduct of Banking Business Directive 342, "Liquidity Risk Management," the Bank applies an internal liquidity risk assessment model, in addition to the regulatory model. The internal model reflects the approach of the Board of Management with regard to the behavioral characteristics of financial assets and liabilities. This model is based on the proven stability of deposits at the Bank, and includes different scenarios with respect to rollover and maturity rates of assets and liabilities. In general, while in the ordinary course of business the Bank assumes very high rollover of deposits and credit, in stress scenarios the Bank assumes an exit of deposits, according to types of customers and deposits; utilization of credit lines beyond the usual levels; declines in value of assets; and additional coefficients. These coefficients are examined annually by the Board of Management and Board of Directors of the Bank. In each scenario, the liquidity gap for a period of up to one month against liquid assets is examined, and a liquidity ratio is calculated; this ratio is not to fall below the minimum level specified in the directive. The scenarios applied in the internal model refer to different market conditions, and specifically to a bank scenario, a system scenario, and a combined scenario.

The scenarios differ primarily in the assumptions with regard to rollover of deposits and haircuts for liquid assets. The Bank also applies models for longer and shorter periods; an NSFR-based model for a period of one year; depositor concentration indices; an alert system, including a system that monitors indicators that may point to a risk of a crisis situation, with an action plan; and more. Some of these indicators are subject to internal and/or regulatory limits. The Bank also monitors various liquidity ratios at the subsidiaries (which are required to comply with both internal liquidity limits adapted to the nature of their operations, and the limits of the local regulator).

The Bank maintains a liquidity cushion for stress situations; maintains a balance sheet structure, and in particular a resource structure, that brings liquidity risk to the preferred level; monitors early-warning systems to identify stress situations in the liquidity environment as early as possible; and maintains a contingency plan for crisis situations, which includes the convening of committees, reporting requirements, and a series of steps for coping with a possible crisis, according to scenarios.

The Bank is in compliance with all regulatory and internal liquidity limits. These include, among others, short-term models, such as the LCR and an internal thirty-day model; medium-term models, such as the NSFR-based internal model (financing sources stable for over a year divided by financing needs stable for over a year, as defined at the Bank, in the vein of the recommendations of the Basel Committee); and limits that refer to the long term. In accordance with Proper Conduct of Banking Business Directive 221, as at December 31, 2019, the Bank holds consolidated liquid assets (primarily reserves at central banks, tradable securities of sovereigns and central banks, and coins and bills) for times of crisis (after haircuts) in the amount of NIS 114,724 million, in addition to liquid bonds not recognized for the purposes of the calculation of liquid assets. Part of the liquid assets are held by the Bank, and part are held by the subsidiaries. The Bank takes into consideration possible restrictions on the transfer of liquidity between some subsidiaries and the Bank itself, particularly banking subsidiaries overseas. Accordingly, some of the subsidiaries hold liquid assets for times of crisis (or a credit line from the parent company – the Bank), according to need, and the Bank does not rely on these assets. In light of the assumptions regarding rollover of deposits in the ordinary course of business, and other assumptions, the Bank does not foresee liquidity problems that would necessitate the use of the liquid assets; however, it is prepared for the required scenarios.

**Table G-2: Details of liquid assets, by level, as required in the Basel directives**

	<b>Balance as at December 31, 2019</b>	<b>Average in the quarter ended December 31, 2019</b>
Level 1 assets	<b>113,250</b>	<b>107,648</b>
Level 2A assets	<b>1,171</b>	<b>1,185</b>
Level 2B assets	<b>302</b>	<b>305</b>
<b>Total HQLA</b>	<b>114,724</b>	<b>109,137</b>

	Balance as at December 31, 2018	Average in the quarter ended December 31, 2018
Level 1 assets	105,564	105,039
Level 2A assets	1,181	1,030
Level 2B assets	315	306
<b>Total HQLA</b>	<b>107,060</b>	<b>106,375</b>

A regulatory limit applies in Switzerland and in New York to the use of the liquidity reserve of these entities. The Bank's scenarios assume the use of liquidity of the subsidiaries/New York branch, taking the limits of each entity into consideration.

**Table G-3: Pledged and unpledged available assets\***

	Fair value balance as at December 31, 2019			
	Pledged assets**	Assets serving as collateral for a central bank	Unpledged assets	Total
NIS millions				
Cash and deposits with banks	<b>1,120</b>	-	<b>87,002</b>	<b>88,122</b>
Israeli government bonds	<b>1,502</b>	<b>735</b>	<b>37,782</b>	<b>40,019</b>
Foreign government bonds	<b>332</b>	<b>7</b>	<b>7,772</b>	<b>8,111</b>
Bonds of financial institutions in Israel	-	-	<b>299</b>	<b>299</b>
Bonds of foreign financial institutions	-	-	<b>6,830</b>	<b>6,830</b>
Bonds of others in Israel	-	-	-	-
Bonds of foreign others	<b>60</b>	-	<b>2,394</b>	<b>2,454</b>
Shares of others	-	-	<b>1,773</b>	<b>1,773</b>
<b>Total securities</b>	<b>1,894</b>	<b>742</b>	<b>56,850</b>	<b>59,486</b>

\* In addition, other assets in the amount of NIS 1,725 million are pledged.

\*\* Includes surplus pledges.

	Fair value balance as at December 31, 2018			
	Pledged assets**	Assets serving as collateral for a central bank	Unpledged assets	Total
NIS millions				
Cash and deposits with banks	1,704	-	82,755	84,459
Israeli government bonds	2,275	1,331	29,033	32,639
Foreign government bonds	154	7	10,328	10,489
Bonds of financial institutions in Israel	-	-	512	512
Bonds of foreign financial institutions	-	-	8,273	8,273
Bonds of others in Israel	-	-	141	141
Bonds of foreign others	43	-	2,498	2,541
Shares of others	-	-	1,521	1,521
<b>Total securities</b>	<b>2,472</b>	<b>1,338</b>	<b>52,306</b>	<b>56,116</b>

\* In addition, other assets in the amount of NIS 543 million are pledged.

\*\* Includes surplus pledges.

## **H. Operational risk**

Operational risk is defined as the risk of loss that may be caused by failed or faulty internal processes, human actions, system malfunctions, or external events. The definition includes legal risk, but does not include strategic risk or reputational risk. Failures related to one of the aforesaid factors may cause damage to profitability. The Bank operates control units, including Information Systems Security and Cyber Defense, Business Continuity, Security, and the Chief Compliance Officer, as well as comprehensive procedures and systems in areas related to banking activity, management of human resources, process control, emergency operation, and more.

### **H.1. Management of operational risks**

Operational risk management strategy is aimed at supporting the achievement of the Group's strategic objectives and maximizing business value, while taking into consideration the costs in terms of risk, by all responsible parties at all levels of the organization. The managerial process is oriented towards execution based on the designation of risk ownership. The goal is for communication and rational treatment of operational risks to contribute to managerial decision-making, based on considerations of business value versus cost in terms of risk, both at the level of the management of the organization and at the level of the various units.

The goals of operational risk management are:

- To ensure effective supervision and management of operational risks in all units of the Group, including risk ownership and decision-making based on cost-benefit considerations.
- To ensure effective identification and communication of operational risks in all substantial business operations of the Group and the supporting units, with the aim of establishing operational risk appetite congruent with the approved strategic objectives of each unit in the Group.
- To establish an internal control structure promoting appropriate values of a culture of awareness, transparency, and efficiency with respect to operational risks within the Group.
- To optimally manage and allocate regulatory capital and economic capital for operational risks.

Responsibility for routine management of operational risk and for activities aimed at mitigating the risk lies with the division heads and the managers of subsidiaries in the Bank Group. These activities are overseen by the Operational Risk Management Department in the Operational Risk and Market Risk Management Unit, within the Risk Management Division. Routine activity is conducted in the Bank's units and in the Group by a network of operational risk controllers, based on the matrix management principle; controllers report organizationally to division heads or CEOs of subsidiaries, and receive methodology guidance from the Operational Risk Management Department.

Operational risk management activity is supervised and directed by three forums:

- The Board of Directors' Committee on Risk Management and Control;
- The Board of Management Committee on Risk Management and Compliance;
- The Subcommittee on Operational Risk Management.

The operational risk management policy was approved by the Board of Management and the Board of Directors of the Bank. The policy document serves as a framework for operational risk management within the Group, in accordance with uniform principles and reporting duties aimed at complying with the Basel 2 Sound Practices standards. The Bank's activity in this area is conducted according to the rules of Proper Conduct of Banking Business Directive 206, "Capital Measurement and Adequacy – Operational Risk," which refers, among other matters, to regulatory capital allocation in respect of operational risks, and Proper Conduct of Banking Business Directive 350, "Operational Risk Management," which is congruent with the updated guidelines in the Basel document of June 2011 on sound practice for operational risk management. The Bank operates in accordance with the Basel 2 standardized approach and the corresponding requirements of the Proper Conduct of Banking Business Directives. The following projects and activities, among others, are underway as part of this plan:

- Collection of information regarding operational events in the Bank Group. A database for this purpose was established in late 2002, and is used, among other things, to analyze events, trends, and patterns and to support the mapping and assessment of operational risks to which the Group is exposed.
- Analysis of risk scenarios in activities and processes from a forward-looking perspective.
- Key risk indicators (KRIs) for operational risks have been specified, as part of the development of a monitoring and control infrastructure, with respect to products, processes, and institutional risks. A KRI is a metric that can be measured in quantitative terms, and may also include qualitative information indicating the presence of a particular factor or trend. Thresholds have been set for follow-up, escalation, and treatment, as relevant.
- Lessons-learned processes applied to operational events; relevant information shared among units; organizational learning.
- Quarterly reports are submitted to the Subcommittee on Operational Risk Management, the Board of Management Committee on Risk Management and Compliance, the Board of Directors' Committee on Risk Management and Control, and the plenum of the Board of Directors. The reports include updates on work plans, the status of projects in progress, information about operational events, assessments of potential risks, trends, changes in the risk profile, and comparative external information.

Routine procedures are performed to identify, map, and assess operational risks and controls at the units of the Bank and the Group, including mapping of the risk of embezzlement and fraud. This activity is conducted based on a uniform methodology in line with the requirements of the Basel Committee and the directives of the Bank of Israel on this matter, including monitoring of the implementation of the recommendations. A comprehensive mapping process of operational risks in all units of the Group is performed every three years. Subsequently, the findings are maintained, updated, and expanded through additional analyses, and risk analysis of new products and activities and of material contractual engagements for outsourcing of activities and processes.

The goal of this activity is to identify material risk areas, define risk ownership, assess risks (average and extreme), assess the existing controls, and differentiate low risks from material risks that require additional examination and action, based on cost-benefit considerations, according to the following main ways of coping with risks:

- Minimization of the risk through the application of additional controls.
- Transfer of the risk to a third party (e.g. insurance, outsourcing).
- Absorption of the risk, with quantification thereof.
- Reduction of the activity that creates the risk.

Additional related activities:

- An automated operational risk management system (PAMELA) has been implemented at the units of the Group. The system operates in the areas of collection of information regarding operational events, mapping and assessment of risks and controls, collection of KRIs (key risk indicators), action items, lessons learned, and reports.
- Formulation and implementation of a comprehensive framework of principles and standards for a uniform control concept within the Bank Group. Within this framework, control committees convene and a periodic process is conducted to evaluate the effectiveness of controls.
- Launches of new products and activities, in accordance with the defined policy for the launch of a new product in the Bank Group, are accompanied by examination and analysis of the relevant operational risks involved in the product or activity.
- Establishment of a methodological infrastructure for operational risk management in material IT processes.
- Outsourcing of activities taking into consideration the risks unique to outsourcing, in accordance with the guidelines of the dedicated policy on this matter.
- Special attention, including the formulation of a dedicated policy, has been devoted to the management of digital banking risks, in accordance with the guidelines in Proper Conduct of Banking Business Directive 367, "Digital Banking."

The operational risk profile is monitored periodically in relation to the operational risk appetite established in the policy, using various parameters, at the level of the Group as a whole and at the level of specific units and processes. The Bank allocates capital in respect of operational risk assets, on the basis of a standardized model defined by the Bank of Israel. Reports on compliance with risk-appetite limits are submitted on a quarterly basis, within the consolidated risk document.

The Bank uses quantitative measures of operational risk appetite that refer to the following parameters: extent of operational damages relative to gross income, according to the Basel standardized approach; rate of increase in damages from year to year; risk scenarios rated at a very high risk level at the level of the Bank Group; and assessment of stress scenarios. An increase in operational damages was observed in 2019, as compared with 2018; however, the rate of operational damages as a percentage of income was in compliance with the risk-appetite limit.

## **H.2. Information technology risks**

The Bank is dependent upon IT systems and infrastructures for its various activities. Information-technology risk is the risk of damage to the proper activity of the Bank and to customer service, loss, or damage to reputation, due to inadequacy or failure of the IT systems and infrastructures of the Bank. In general, the Bank maintains its information systems and infrastructures, adopts new technologies, and continually acts to provide technological infrastructures in order to allow the operation of its business and the promotion of strategic initiatives at the various divisions, in accordance with the information-technology management policy of the Bank. Dedicated policy documents exist at the Bank addressing information and cyber security aspects, and principles for backup and recovery in cases of malfunction or disaster, as well as policy documents on outsourcing, cloud computing, rules for the realization of new technologies within digital banking, and the management of IT risks. In addition, in order to cope with the challenges of the future, simplify and improve the efficiency of technological platforms, improve response capabilities, and build new abilities, the Bank has decided to carry out a multi-year project for the modernization of its central IT systems.

IT risks are examined routinely, based on accepted methodologies, on the level of material IT processes conducted at the Bank as well as on the level of the information systems and infrastructures used at the Bank. Risks arising from material IT processes are addressed as part of the control approach implemented at the Information Technology Division, by several dedicated professional units reporting to the management of the division. These units act in accordance with the various regulatory guidelines, such as Proper Conduct of Banking Business Directives 357, 361, and 363. The units include the Information Systems Security and Cyber Defense Department, the Planning and Control Unit, the Development Control and Business Continuity Unit, and the IT Risk Management Unit.

## **H.3. Information security and cyber risks**

Cyber risk is the risk of damage, including disruption, disturbance, shutdown of operations, theft of property, collection of intelligence, or damage to reputation or the confidence of the public, as a result of a cyber event. Cyber activity is conducted as required in the directives of the Bank of Israel, including Proper Conduct of Banking Business Directive 361, "Cyber Defense Management"; Proper Conduct of Banking Business Directive 363, "Supply Chain"; the Protection of Privacy Law, 1981; and other laws, as relevant, with the aim of protecting the information-technology system and minimizing risks. Information security and cyber risks at the Bank are managed by the Information Security and Cyber Defense Unit in the Information Technology Division.

The sophistication and severity of cyber attacks on the global financial sector have escalated in recent years. Technological development trends such as cloud computing, openness to external interfaces, and the expansion of digital services, on one hand, and the advanced tools available to attackers, on the other hand, have led to higher exposure to cyber risks. The banking sector in Israel, including the Bank, regularly experiences cyber attacks, such as DDOS (distributed denial of service – attacks designed to shut down a computer system by overloading its resources), phishing (attempts to steal sensitive information through impersonation on the Internet), etc. No material cyber events were discovered at the Bank in 2019.

The Bank invests extensive resources (both human and technological) in strengthening its information security and cyber defense system, in order to cope with the development of these threats. The Bank's defense framework consists of layers of protection using advanced technologies. The Bank operates cyber defense processes in order to minimize the risk of penetration, unauthorized access to information systems, and materialization of attacks, and to ensure the correctness, availability, and confidentiality of its databases. Concurrently, the Bank operates processes to discover and identify cyber events, at all times, including the operation of the Information Security Event Center. The Bank also prepares to contain cyber events and minimize the damage to the assets of the Bank and its customers. The Bank continually works to identify targets to defend, threats, risks, and the effectiveness of defenses, and to build work plans for improvement of the defensive framework accordingly.

The Bank routinely updates its risk assessment in view of insights from cyber events in Israel and worldwide relevant to the systems and business of the Bank. The Bank also accords high importance to maintaining an organizational culture of risk management, and therefore takes various actions (such as lectures, messaging, and exercises at various levels) to raise employee awareness of cyber risks.

The Cyber Risk Management Unit in the Risk Management Division establishes indices and methodologies for the evaluation of the maturity of defenses, analyzes the business implications of cyber scenarios, challenges the defense system, and examines developments in the area of cyber risk relevant to the technological and business systems of the Bank.

#### **H.4. Cloud computing risks**

The Bank of Israel issued Proper Conduct of Banking Business Directive Update 362(2) in November 2018. This directive eliminates the need to request the approval of the Bank of Israel for material cloud computing, and transfers the management and decision authority to the bank. The Bank continues to apply cloud computing in certain areas, and is examining additional uses, with appropriate attention to the derived operational risks, and in accordance with regulatory guidelines, with the aim of allowing realization of the business advantages of the use of cloud-computing services while prudently managing the risks and complying with regulatory requirements.

#### **H.5. Emergency preparedness**

The Bank maintains and implements a continuous plan for emergency preparedness and business continuity (BCMP – business continuity management plan), in accordance with the Bank of Israel's Directive 355, "Business Continuity Management"; Directive 357, "Information Technology Management"; and additional expansions. The Bank's preparedness is based on detailed action plans, working procedures, and periodic tests and drills, defined in a system of emergency procedures. As part of its emergency preparedness, the Bank conducted a lateral process to establish policies, define reference scenarios, map and analyze critical processes and the resources required for the recovery of such processes during an emergency (BIA), and update its action plans based on globally prevalent methodologies. The action plan involves all divisions of the Bank, through divisional business continuity officers and designated teams. The BCP is led by a specialized Business Continuity Management Unit, which reports to the Head of Business Continuity of the Bank and to the head of the Bank Emergency Committee (the Head of Information Technology).



The business continuity policy has also been adopted by the subsidiaries in Israel and globally, and at the Bank's overseas branches, in congruence with the corporate-governance policy and the guidelines of the Bank of Israel. In addition, the Bank holds periodic emergency drills covering operational scenarios as well as complex business scenarios, with the participation of the various units, from branches, regional managements, units, and divisions to the Board of Management of the Bank. The Bank has established a new remote central IT site, to ensure the availability and protection of its information systems and of the information itself.

The Israel Standards Institute has affirmed that the business continuity management system of the Bank complies with the requirements of the international standard ISO 22301.

As part of its preparedness for business continuity, the Bank is prepared to handle a range of possible scenarios. With respect to emergency scenarios that may cause the Bank to incur significant damage, red-alert systems are monitored and detailed business continuity contingency plans are in place. Extreme scenarios are reviewed and discussed periodically by the Committee on Extreme Scenarios and Risk Concentrations. The activation of a contingency plan is under the responsibility of the Board of Management or of the designated Board of Management committee responsible for the financial aspects of crisis situations; note that a charter for the establishment of such a committee is also part of the contingency plans.

#### **H.6. Insurance**

The Bank has a banking insurance policy to hedge operational risks, which includes: (1) banking insurance to cover damages that may arise from embezzlement by employees, loss of documents, forged documents, etc.; this policy includes coverage for damages due to computer crimes caused to the Bank and/or its customers as a result of penetration of the computer systems of the Bank by an unauthorized third party, (2) professional liability insurance, to protect against claims filed by customers regarding damage caused by negligent banking actions. These insurance policies are subject to exclusions common in insurance policies of banking corporations in Israel (including an exclusion of damage arising from violation of the directives related to money laundering and terrorism financing).

In addition, the insurance structure of the Bank also includes property insurance, third-party insurance, employers' liability, directors' and officers' liability insurance, and additional insurance policies.

The liability limits in the policies were established by the Bank based on an assessment of the risk involved in the activity of the Group, as part of its overall risk-management policy. Within the fulfillment of the Sound Practice requirements under the Basel guidelines, cooperation and exchanges of information are maintained between the Operational Risk Management Department and the unit that handles banking insurance.

#### **I. Compliance risk**

Compliance risk is the risk of imposition of a legal or regulatory sanction, material financial loss, or reputational damage which the banking corporation may suffer as a result of a failure to comply with the compliance directives, as defined in Proper Conduct of Banking Business Directive 308.

Pursuant to Proper Conduct of Banking Business Directive 308, compliance risk also includes risks related to the fairness of the Bank towards its customers, conflicts of interest, the prohibition of money laundering and financing of terrorism (including with respect to tax laws), provision of advice to customers, securities enforcement, protection of privacy (excluding information-technology aspects), the US FATCA directives and the international CRS directives, and taxation aspects relevant to products or services for customers, or directives of a similar nature. Compliance risk also includes the reputational risk that accompanies failure to comply with such directives.

Imposition of monetary sanctions by the Supervisor of Banks: During the course of 2019, there was an increase in instances of monetary sanctions imposed on banks and credit-card companies (including the Bank and Isracard) by the Banking Supervision Department, in cases in which, according to the position of the Banking Supervision Department, flaws or deficiencies were discovered in the conduct of the financial institutions. For details and more extensive information, see the section "Other matters" in the Corporate Governance Report.

The Bank applies a policy of compliance with all legal and regulatory directives, and works to instill this policy at its units and among its employees. For the purposes of risk management, the key compliance risks against which the Bank seeks to defend itself can be described as the following:

- The risk of material damage arising from a regulatory order of any government agency due to noncompliance of the Bank or of any of its employees with directives concerning the prohibition of money laundering and terrorism financing, or deficiencies in processes designed to ensure such compliance, or the absence of such processes;
- The risk of material damage arising from a regulatory order of a regulatory agency due to improper activity of the Bank or of any of its employees in relation to customers of the Bank, tax issues, or noncompliance with legal directives in these contexts;
- The risk of material damage arising from a regulatory order of a regulatory agency due to noncompliance of the Bank or of any of its employees with securities laws;
- The risk of material damage arising from a class-action suit due to noncompliance with directives that regulate the Bank-customer relationship;
- The risk of a criminal suit against the Bank or against its senior executives due to noncompliance with the law.

Risk indicators are used, among other means, to identify key areas of compliance risk and to monitor their development. The key risk areas and the intensity of the risks arising from these areas may change in accordance with changes in regulation, enforcement, the activity of the Bank and of its customers, market developments, etc. The Bank uses quantitative and qualitative indicators to measure this risk. These include developments in regulation and enforcement, changes in customers and in certain products, findings of controls and audits, gap surveys, and more.

The Chief Compliance Officer of the Bank serves in this position, pursuant to Proper Conduct of Banking Business Directive 308, among other matters, as the officer responsible for the duties set forth in the Prohibition of Money Laundering and Prevention of Terrorism Financing Law; as the supervisor of securities enforcement, pursuant to the Law for More Efficient Enforcement Procedures at the Israel Securities Authority; and as the responsible officer pursuant to FATCA. The Chief Compliance Officer and Securities Enforcement Unit consists of the Anti-Money Laundering Unit; the Securities Enforcement and International Compliance Unit; the Customer Relations, Consumer Protection Directives, and Subsidiaries Unit; the International Taxation Compliance Unit; and the Administrative Unit.

The mission of the Chief Compliance Officer Unit is to support the achievement of the Group's strategic and business objectives, while minimizing exposure to compliance and reputational risks. The objectives of the Chief Compliance Officer Unit are:

- To lead a policy of full implementation of legislation at all units of the Bank, in Israel and worldwide, with an understanding of the needs of the business units and support for their activity;
- To use a risk-based approach to identify, document, and actively assess compliance risks inherent in the business operations of the Bank;
- To monitor and examine compliance in the Bank Group through sample testing, and to report the findings to the organs of the Bank.

The responsibility for routine management of the compliance aspects of risk at the Bank and for the execution of activities aimed at minimizing this risk lies with the division heads and the managers of subsidiaries in the Bank Group. Professional responsibility in this field, as a second line of defense, rests with the Chief Compliance Officer Unit in the Risk Management Division. Routine activity is conducted at the Bank's units and in the Group by a network of compliance officers, based on the matrix management principle, with organizational subordination to division heads or CEOs of subsidiaries and professional subordination to the Chief Compliance Officer Unit.

The activity of the Chief Compliance Officer and Securities Enforcement Unit is supervised within corporate governance, through:

- The Board of Directors' Committee on Risk Management and Control;
- The Board of Management of the Bank, headed by the CEO;
- Reports, at least once annually, to senior management and to the Board of Directors on compliance issues.

The compliance policy of the Group sets rules regarding all of the component areas of the compliance issues described above. This policy includes rules regarding corporate governance and the interaction with subsidiaries and branches outside Israel, and is based on legislation and regulation in Israel and in the relevant locations. The Bank Group has established an infrastructure to oversee the disclosure requirements with respect to individuals and corporations in the context of FATCA, and is continuing the process of automating the requirements arising from this legislation and from the Israeli regulation in this area. Similarly, the Bank Group is establishing infrastructure to address disclosure requirements with respect to individuals and corporations in the area of CRS. The Israeli law requires financial institutions in Israel to report financial accounts of customers with foreign tax residency, within the CRS information exchange treaty signed by Israel. The Income Tax Regulations (Implementation of a Uniform Standard for Reporting and Due Diligence of Information on Financial Accounts), 2019, were passed by the Finance Committee of the Knesset on January 1, 2019. The Bank has also established an overall policy of declared funds, including with regard to foreign-resident customers, aimed at reducing exposure to the presence of unreported funds in the accounts of foreign residents throughout the Bank Group.

## **J. Legal risk**

Legal risk includes, among other matters, legal claims, rulings, inability to enforce contracts, and exposure to fines, penalties, or enforcement measures as a result of supervisory actions and private settlements that may disrupt or adversely affect the activity of the Bank Group. The Group has a structure of internal and external legal counsel in order to contend with this risk.

The Bank takes a broad approach to legal risks, such that these risks encompass risks arising from primary and secondary legislation and regulatory directives, including risks arising from a lack of knowledge regarding the directives of local or foreign law applicable to the activity of the Bank or of the Group, or misinterpretation thereof; rulings of courts, tribunals, and other entities with quasi-judicial authority; actions that are not backed by legal counsel; flawed legal counsel; and risks arising from legal proceedings.

Pursuant to Proper Conduct of Banking Business Directive 350, legal risk is intertwined with operational risk. Legal risk is managed in accordance with the legal risk exposure management policy document. Subsidiaries in Israel and overseas are required to adopt the aforesaid policy document and formulate their own policy documents accordingly.

Legal counsel submits a quarterly report to the Board of Management and to the Risk Management Committee of the Board of Directors regarding legal risks that have materialized, in comparison to prior estimates on this matter, as well as statistical information regarding the various types of legal proceedings opened or concluded during the relevant period.

For additional information regarding legal risk, see Note 25 to the Financial Statements.

## **K. Reputational risk**

Reputational risk is defined as present or future risk of damage to income or capital as a result of a negative image in the eyes of relevant stakeholders, such as customers, parties to transactions, shareholders, investors, or regulatory agencies. This risk, which usually accompanies other activities and other risks, may materialize in various ways, such as customer departures, new regulation, and more.

The reputational risk management policy of the Bank Group has been approved by the Board of Management and the Board of Directors, and is implemented by the units of the Group.

The reputational risk management strategy of the Bank Hapoalim Group states that reputational risks should be prevented, minimized, and controlled. Accordingly, the following objectives have been set at the level of the Group with respect to reputational risk:

- To ensure effective supervision and management of reputational risk;
- To ensure effective communication and identification of reputational risk, with the aim of establishing a reputational risk appetite.
- To establish an internal control structure, with the aim of promoting a culture and values of awareness, transparency, and effectiveness in coping with reputational risks.

The framework for the management of reputational risk includes, among other matters, KRI monitoring, mapping of risk centers, surveys, and an annual dedicated discussion. The Board of Directors and the Board of Management are responsible for promoting high standards of ethics and integrity and for establishing a culture that emphasizes the importance of internal controls.

## **L. Regulatory risk**

Regulatory risk is risk to the Group's income and/or capital arising from legislative processes and/or draft directives of various regulatory agencies that cause changes in the Group's business environment. Such changes may occasionally influence the Group's ability to offer certain services, and/or may obligate the Group to carry out technological and other investments at considerable cost, while disrupting schedules for development of other planned services.

### **L.1. Restrictions and supervision of the activity of the banking corporation**

The Bank operates under laws, regulations, and directives, some of which are unique to the banking system, and some of which, even if not unique, affect material parts of its activity. The Banking Ordinance, the various banking laws, and the Proper Conduct of Banking Business Directives issued from time to time by the Supervisor of Banks constitute the central legal foundation for the Bank Group's activity. Among other matters, they define the boundaries of the activities permitted to the Bank, the activities permitted to the subsidiaries and related companies of the Bank Group, the terms of control and ownership of such companies, the relationships between the Bank and its customers, the usage of the Bank's assets, and the manner of reporting such activity to the Supervisor of Banks and to the public.

In addition, the Bank is subject to extensive legislation regulating its activity in the capital market, both on behalf of its customers and on its own behalf (e.g. in the areas of investment advising and customer portfolio management, pension advising, securities laws, and restrictions on insurance activity).

Other laws on specific topics impose specific duties and rules on banks, including the Bank. Examples include the legislation related to the prohibition of money laundering and terrorism financing, the Credit Data Law, legislation related to housing loans, guarantee laws, etc.

Additional legislation related to the Bank's activity has a strong influence on its conduct. Noteworthy in this area are, among others, execution laws, liquidation and receivership laws, laws referring to specific segments (local authorities, mortgage takers, home buyers, the agricultural sector), and various tax laws; various consumer laws, such as the prohibition of discrimination and accessibility requirements; and social initiatives of Knesset members, in the form of private legislation concerning early repayment fees, excessive collection, and more.

The Bank's activity is subject to supervision and auditing by the Banking Supervision Department, as well as by other supervisory agencies in specific areas of activity, such as the Israel Securities Authority; the Capital Market, Insurance, and Savings Authority; the Privacy Protection Authority; the Money Laundering Prohibition Authority; and the Competition Authority. These agencies carry out audits at the Bank, from time to time, concerning the various areas of activity.

The Bank and its subsidiaries work to comply with the duties imposed upon them under the aforesaid legal provisions.

## **L.2. Regulatory risk management methods**

The Regulation Unit assesses and manages regulatory risks by monitoring, identifying, collecting information, assessing, reporting, conducting follow-ups, and applying controls with respect to regulatory developments, as they emerge. The unit serves as the liaison between the internal units of the Bank and the regulator during the formulation of legislation, with the aim of giving voice to a professional opinion, to lower the risk of non-optimal regulation. The unit also supplies opinions, as relevant, with regard to the effect of forthcoming regulation on the expected business conduct of the various units of the Bank. The unit operates in full cooperation with the relevant professional units of the Bank and at the subsidiaries and offices in Israel and overseas, in order to ensure that regulation is implemented fully and in an effective manner in business terms. With regard to compliance with regulatory directives, see "Compliance risk," above.

For details regarding material regulatory initiatives with an effect on the activity of the Bank during the reported period, see Note 35 to the Financial Statements.

## **M. Economic risk**

Risk factors in the economic environment are identified by the Economics Department, which tracks current economic and financial data in Israel and worldwide and professionally evaluates the implications of the data. The department maps potential risks in the economy and in the financial markets, and reports to the relevant teams and committees.

Concurrently, the department prepares a set of stress scenarios with a possible but low probability of future materialization, which in its opinion may have significant economic and financial consequences for the economy and for the Bank. The stress scenarios are updated annually, according to the risk map, and approved by the authorized parties, in accordance with procedures. The Economics Department also examines a series of warning indicators that may signal an increase in the probability of a stress scenario. Warning indicators are reported routinely to the Board of Management Committee on Risk Management.

The Bank translates the market conditions in the scenarios into the impact on its business activity, according to the various risk areas, and examines the effect on its profitability, capital, and capital adequacy, while monitoring risks and segments that may be affected by economic changes in Israel and worldwide, and adapting its policies and control activities as necessary. Among other factors, the Bank examines the securities in its investment portfolio in Israel and overseas, its exposure to foreign financial institutions, and risk centers in the credit portfolio that may be influenced by such developments, and routinely complies with the liquidity requirements, as required by the supervisory directives.

For details regarding conditions in the Israeli and global economy, see Section 2.11, "Economic and financial review," above.

For details regarding the coronavirus, see the Section 3.1.4, "Additional matters," above.

## N. Strategic risk

Strategic risk is material present or future risk to profits, capital, reputation, or status that may be caused by changes in the business environment; faulty business decisions; improper implementation of strategy or business decisions; or failure to respond to changes in the industry (e.g. competitors' actions), the economy, or technology. Strategic risk is also a function of the congruence of the organization's strategic objectives with its environment, adaptation of the business plans that it develops to achieve these objectives, resource allocation, and quality of implementation. As such, this risk constitutes forward-looking information.

The strategic plan of the Bank is a three-year plan approved by the Board of Management and the Board of Directors, and examined and adjusted annually to changes in the business environment in Israel and globally, changes in the Bank's competitive environment, and changes in the Bank's objectives.

The process of formulating the strategic plan encompasses a general examination of the corporation's business and the relevant strategic risks, and a comprehensive planning process. Within the annual planning process, the Board of Management of the Bank examines the future competitive landscape, and builds strategic plans accordingly, in order to respond by preparing as necessary for this future.

The annual strategic planning process consists of four main stages, each of which addresses a different aspect of strategic risk management and assessment:

**Stage 1** – Identification of the strategic risks to the Bank in its competitive environment. Examination of the factors influencing the Bank's competitive ability and future growth potential, including an examination of global and local trends and the current situation at the Bank. In this stage, according to the findings, the Board of Management and the Board of Directors establish the key strategic objectives as well as additional emphases to be addressed during the preparation of the strategic plans.

**Stage 2** – Formulation and approval of the strategic plan. The Bank formulates all of its strategic plans in accordance with the strategic emphases established, synchronized with the financial objectives, taking risk aspects into consideration. The Risk Management Division presents challenges with regard to this activity.

**Stage 3** – Implementation of strategic planning. The strategy of the Bank is embedded in the strategic maps using the BSC (Balanced Score Card) methodology. The strategic emphases and plans of the Bank are reflected in the BSC maps. The BSC maps consist of goals, indices, and measurable objectives for each index (on both the process level and the level of business results), derived from the strategy, designed to motivate the behavior and performance of the various units, and used to monitor the implementation of the strategic plan and track strategic risk. Significant deviation from the objectives established in the BSC maps may be an indication of partial realization of the strategic plan, and therefore raises concern over an increase in strategic risk.

**Stage 4** – Linking of the measurement of the BSC indices to the remuneration of officers and senior executives. In order to ensure the importance of the strategic objectives, most of the BSC indices are linked to the personal objectives of the heads of the Areas and of senior executives, including risk-management indices.

## **O. Environmental risk**

Environmental risk to the Bank is the risk of loss as a result of directives related to the protection of the environment and the enforcement thereof, which may materialize if the Bank bears direct responsibility for an environmental hazard, including the possibility that the Bank may be required to remove an environmental hazard, or may be liable to a third party in respect of an environmental hazard, or as a result of the impairment of realized collateral. This risk may also materialize indirectly as a result of the deterioration of the financial condition of another entity due to environmental costs stemming from directives related to the protection of the environment. Reputational risk may also materialize as a result of the association of the Bank to a party causing environmental damage.

Environmental risks related to large credit portfolios are monitored by the Corporate Banking Division. Environmental risk related to the Bank's own activity is under the responsibility of the Head of Corporate Social Responsibility.

In recognition of its social responsibility, and based on an understanding of the importance of maintaining environmentally sustainable policies, the Bank has formulated a comprehensive, ordered environmental policy. This policy is implemented through an organizational structure and specified roles, procedures, processes, and monitoring systems. As part of the process of managing and assessing its environmental conduct, the Bank received certification under the ISO 14001 standard, which is revalidated annually, in a comprehensive review by a licensed international firm. An extensive description of activities in connection with the environment is presented in the Corporate Social Responsibility Report of Bank Hapoalim, published annually in accordance with the most advanced GRI standard.

The Bank has established policies, working procedures, and methodologies for the identification, specification, and management of environmental risks, in order to address the effect of environmental risk on the credit risk of major borrowers. During the formulation of the process of writing the policies and working procedures, prevalent methodologies at banks overseas were examined, and experts in this field were consulted. The methodology for identification of environmental risks includes, among other matters, reference to the potential environmental risk in an economic sector, as well as individual reference to environmental risks that may have a material effect on the corporation, based on its business activity. The management of environmental risks is part of the overall management of credit risks at the Bank; an assessment of environmental risk is included in evaluations of the quality of credit granted to customers by the Bank.

The Bank, or any senior officer of the Bank, were not a party, during the reported period, to any material legal or administrative proceedings related to the environment.



## **P. Remuneration disclosure**

For details regarding remuneration for interested parties and officers of the Bank, in accordance with Regulations 21 and 22 of the Securities Regulations (Periodic and Immediate Reports), 1970, see the section on corporate governance, audit, and additional information regarding the Bank's business and the management thereof in the Annual Report of the Bank for 2017.

### **P.1. Entities supervising remuneration**

The entities supervising remuneration are the Board of Directors of the Bank, through the Remuneration Committee of the Board of Directors. The Remuneration Committee consists of three members, which included, in 2019, two external directors and an additional director. The chairperson of the committee is an external director. The powers of the Remuneration Committee are those granted to it in accordance with the applicable law – inter alia, in accordance with the directives of the Companies Law, 1999, and the directives of the Supervisor of Banks (Proper Conduct of Banking Business Directive 301 and Proper Conduct of Banking Business Directive 301A), and as defined in the procedures of the Bank. The Remuneration Committee supervises the implementation of the remuneration policy and of the remuneration plans, and for that purpose is assisted by the risk management, control, and audit functions of the Bank. The Remuneration Committee, with the assistance of the risk management, control, and audit functions of the Bank, as necessary, has designed and designs the means of control to ensure that the principles of the remuneration policy are maintained, in such a manner as to ensure on a regular basis that the actual remuneration of the officers, the risk and performance indicators, and the results thereof are consistent with the chosen remuneration mechanisms and with the policy objectives.

The committee is also assisted in its work by external advisors – economic (Cognum Financial Consulting Ltd.) and legal (Goldfarb Seligman Law Offices) – who advise the committee with respect to the remuneration policy and remuneration plans in accordance with applicable laws, and in connection with information required by the committee in order to make informed decisions, remuneration approval processes at the Bank, and various controls, all as required by the applicable laws.

The remuneration policy of the Bank contains a chapter addressing the Bank Group, which applies similar principles to those of the Bank's remuneration policy to selected subsidiaries of the Bank in Israel; with respect to the overseas subsidiaries and overseas branches of the Bank, there are certain adjustments which apply, in order to adjust the remuneration to the laws that apply in the relevant country and to the terms of the labor market there.

The key employees of the Bank include the following employees: the Chairman of the Board of the Bank; the CEO of the Bank; members of the Board of Management of the Bank; other executives who report directly to the CEO of the Bank; a group of employees under executive personal contracts who report to members of the Board of Management and who are not officers; and several employees in the nostro, dealing rooms, OTC, and derivatives units who are not officers or senior executives.

### **P.2. Planning and structure of remuneration processes**

The main characteristics and objectives of the policy are described below, including a reference to the way in which the Bank ensures that employees engaged in risk management and compliance are remunerated without dependence upon the business under their supervision.

General information – The Bank aspires to remunerate officers and executives for their work and contribution to the Bank, and to retain them over the long term, while creating appropriate incentives and linking their best interests with the best interests of the Bank and of its stakeholders, in alignment with the goals of the Bank, its work plans, and its policies, from a long-term perspective. The remuneration policy is consistent with the Bank's vision and strategy and with its work plans and risk appetite. Its purpose is to lead to maximization of the Bank's value, while emphasizing the Bank's stability and the interchange between achieving returns and taking risks.

The main goals of the remuneration policy are:

- To motivate officers to act to create long-term economic value for the Bank and its stakeholders, in a manner that strengthens the connection between remuneration and the creation of value for the stakeholders in general and for shareholders of the Bank in particular.
- To adjust the remuneration to the Bank's vision, to the overall strategic plan of the Bank and of its secondary units, and to the work plan derived from the strategic plans. Accordingly, remuneration incentives shall also be adjusted to the long-term objectives formulated in the strategic plan and in periodic work plans.
- To adjust the total remuneration to the risk appetite of the Bank.
- To maintain the Bank's competitiveness in recruiting and retaining high-quality personnel for senior executive positions; the remuneration amounts shall be proportionate and shall take into consideration the terms of the market and the structure of remuneration at the Bank.
- To comply with regulatory requirements. Officers' remuneration shall include a component reflecting attainment of the general objectives of the Bank with respect to risk management and compliance with laws and with the procedures of the Bank.
- To promote a remuneration structure that considers the effect of disparities on working relationships at the Bank.
- To adjust remuneration to the type of officers' activities and responsibilities, and to their skills.
- Remuneration for the organizational functions that are involved in supervision and control shall be determined based on standards that take into consideration the importance and sensitivity of these roles. The bonus budget for these functions shall be determined according to the cost of capital, and based on the attainment of key performance indicators (hereinafter: "KPIs"), to be established in advance by the supervisors of the executives in the supervision and control functions, according to the role of the executive.

### **P.3. Inclusion of existing and future risks in the remuneration process**

The annual and multi-annual work plans are constructed, among other matters, with reference to the volume and types of the risks that the Bank is willing to undertake. The achievement of objectives of the work plan, including capital-adequacy targets, and the achievement of a surplus return over the required cost of capital set the threshold for the distribution of bonuses. This objective is also achieved through a ceiling on variable remuneration, and through postponement of the payment of part of the annual bonus, in certain cases, which is contingent on the Bank's performance in future years, so that executives are exposed to the consequences of materialization of the risks taken, and their remuneration decreases if or when the risks materialize in the future.

Risk management, control, and audit functions at the Bank assisted the Board of Directors of the Bank and the Remuneration Committee of the Board of Directors in ensuring that risk indicators and performance indicators used in the remuneration mechanisms of the officers are consistent with the objectives of the remuneration policy and provide assurance of the effectiveness of the remuneration mechanisms.

The principal risks taken into consideration by the Bank in applying remuneration indicators include credit and concentration risks, market risks, operational risks, and compliance risks.

#### **P.4. The connection between performance during the measured period and remuneration levels**

The main performance indicator for the Bank is the attainment of the required rate of return on equity, as detailed in the Bank's remuneration policy. The main individual performance indicators are established according to the work plans of the Bank, and are drawn from different fields, such as finance; customers; processes, including long-term projects; and technological infrastructures and human resources. Lateral objectives are also integrated in the individual objectives, based on the needs of the organization, such as objectives related to efficiency, employee satisfaction, and intra-organizational service.

Once annually, during the process of approval of annual bonuses, an examination is performed to ensure that the parameters that determine the extent of remuneration are consistent with the indicators of success of the strategic plan of the Bank.

In exceptional cases, the objectives shall be presented for discussion at the end of the year, in aggregate, in order to make changes.

#### **P.5. Adjustment of remuneration to long-term performance**

On December 19, 2016, the general meeting of shareholders of the Bank approved the officer remuneration plan of the Bank, for a period of three years; on December 26, 2019, the general meeting of shareholders of the Bank approved the extension of the term of the remuneration policy until no later than December 31, 2020. The remuneration policy is consistent with the Financial Corporations Officer Remuneration Law (Special Approval and Non-Deduction of Expenses for Tax Purposes due to Exceptional Remuneration), 2016 (hereinafter: the "Remuneration Limit Law") and the ceiling established therein (the "Remuneration Ceiling"); the Companies Law, 1999 (the "Companies Law"); and the Banking Corporation Remuneration Policy Directive (the "2016 Remuneration Policy"). On November 29, 2016, the Bank adopted a comprehensive remuneration policy for its senior executives and employees who are not officers (all parts of the remuneration policy for all populations shall hereinafter be referred to, jointly, as the "2016 Remuneration Policy"), as well as a remuneration plan consistent with this policy (the "2016 Plan"), which have been updated from time to time. In general, variable remuneration consists, among other components, of an annual bonus contingent upon the financial performance of the Bank, based on risk-adjusted profit and the cost of capital of the Bank, and shall also be determined according to the attainment of measurable quantitative and qualitative individual key performance indicators (the model for establishing the bonus budget for traders differs from the foregoing description, and takes into account factors including the specific performance of the group and room to which they belong).

Under the circumstances established in Proper Conduct of Banking Business Directive 301A, 50% of the annual bonus may be deferred and spread over three years, in a manner that compensates for unsatisfactory performance during that period, if any, and shall be paid in share-based instruments (usually in the form of restricted stock units (RSU), with a vesting condition of an ROE difference of no less than -5%), provided that the variable remuneration in a given year is higher than 40% of the fixed remuneration in that year; otherwise, the deferral shall not be performed, all subject to the applicable law. In the event of an annual net loss from regular activities, or a material deviation from the capital-adequacy ratio, the deferred payment shall be deferred until annual profit is presented, or until the deviation from capital adequacy ceases, as the case may be.

Pursuant to the 2016 Remuneration Policy, the Remuneration Committee and the Board of Directors shall be authorized to subtract up to 50% of the annual bonus of an executive, in cases in which the financial or business position of the Bank makes it necessary, and/or due to reasons related to the functioning of the executive or reasons to be explained by such organs.

The 2016 Remuneration Policy states that in the event that the audited financial statements of the Bank for a given year are amended, such that if the amount of the bonus owed to the executive in respect of that year had been calculated based on the amended data the executive would have received a bonus in a different amount, the executive shall reimburse the Bank for, or the Bank shall pay the executive, as relevant, the difference between the amount of the bonus received or the amount unpaid by the Bank, as relevant, and the amount to which the executive is entitled based on the said amendment, provided that, if the executive has left the Bank, no more than three years have elapsed from the end of the executive's employment at the Bank. There are also additional directives concerning the obligation of reimbursement of variable remuneration, according to the Banking Corporation Remuneration Policy Directive.

#### **P.6. Variable remuneration**

Subject to the foregoing, under certain circumstances, half of the variable remuneration is paid in cash, and the other half is paid as deferred remuneration.

The deferred variable remuneration is usually paid in the form of restricted stock units. However, at the Bank's subsidiaries in general, and at the subsidiaries overseas in particular, it is possible for such remuneration to be paid in the form of phantom restricted stock units (or to be deferred and paid in cash). The foregoing also applies to employees on assignment overseas for the Bank, for tax reasons.

Table P-1: Remuneration in respect of the reported year for senior officers and other key employees (in NIS millions)

	2019		2018	
	Senior officers	Other key employees	Senior officers	Other key employees
<b>Amount of remuneration</b>				
<b>Fixed remuneration</b>				
Number of employees	21	199	23	191
Total fixed remuneration	44	204	37	214
Of which: cash-based	31	186	32	193
Of which: deferred	-	-	-	-
Of which: shares or other share-based instruments	5	9	5	9
Of which: deferred	-	-	-	-
Of which: other forms	8	9	-	12
Of which: deferred	-	-	-	-
<b>Variable remuneration</b>				
Number of employees	1	70	23	165
Total variable remuneration	-	16	7	39
Of which: cash-based	-	15	7	37
Of which: deferred	-	-	-	-
Of which: shares or other share-based instruments	-	1	-	2
Of which: deferred	-	1	-	2
Of which: other forms	-	-	-	-
Of which: deferred	-	-	-	-
Total remuneration	44	220	44	253

Table P-2: Special payments in the reported year to senior officers and other key employees (in NIS millions)

	2019					
	Guaranteed bonuses		Signing bonuses		Severance pay	
	Number of employees	Total	Number of employees	Total	Number of employees	Total
Senior officers	-	-	-	-	-	-
Other key employees	-	-	-	-	6	5
	2018					
	Guaranteed bonuses		Signing bonuses		Severance pay	
	Number of employees	Total	Number of employees	Total	Number of employees	Total
Senior officers	-	-	-	-	3	7
Other key employees	-	-	-	-	13	10

Table P-3: Deferred remuneration for senior officers and other key employees (in NIS millions)

	2019				
	Total unpaid amount of deferred remuneration balance	Of which: total unpaid amount of deferred remuneration and retained remuneration exposed to explicit and/or implicit retroactive adjustments	Total amount of amendment performed during the year due to explicit retroactive adjustments	Total amount of amendment performed during the year due to implicit retroactive adjustments**	Total amount of deferred remuneration paid during the reported year
<b>Deferred remuneration and retained remuneration</b>					
<b>Senior officers</b>					
Cash	-	-	-	-	-
Shares*	-	-	-	-	-
Share-based instruments	-	-	-	-	1
Other	-	-	-	-	-
<b>Other key employees</b>					
Cash	-	-	-	-	1
Shares*	1	-	-	-	-
Share-based instruments	2	2	-	-	8
Other	-	-	-	-	1
<b>Total</b>	<b>3</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>11</b>
	2018				
	Total unpaid amount of deferred remuneration balance	Of which: total unpaid amount of deferred remuneration and retained remuneration exposed to explicit and/or implicit retroactive adjustments	Total amount of amendment performed during the year due to explicit retroactive adjustments	Total amount of amendment performed during the year due to implicit retroactive adjustments**	Total amount of deferred remuneration paid during the reported year
<b>Deferred remuneration and retained remuneration</b>					
<b>Senior officers</b>					
Cash	-	-	-	-	2
Shares*	-	-	-	-	-
Share-based instruments	2	2	-	-	5
Other	-	-	-	-	-
<b>Other key employees</b>					
Cash	3	2	-	-	10
Shares*	-	-	-	-	-
Share-based instruments	10	10	-	-	18
Other	1	-	-	-	2
<b>Total</b>	<b>16</b>	<b>14</b>	<b>-</b>	<b>-</b>	<b>37</b>

\* Does not exist at the Bank.

\*\* Contingent RSU forfeited due to partial attainment of the ROE difference that would grant entitlement to the maximum amount.

## Q. Addendums

### Addendum A: Connections between the financial statements and supervisory exposures

Table Q-1: Connection between the balance sheet and supervisory capital components

	<b>December 31, 2019</b>	December 31, 2018*	References to components of supervisory capital
	Consolidated supervisory balance sheet		
	NIS millions		
<b>Assets</b>			
Cash and deposits with banks*	<b>88,122</b>	84,481	
* Of which: collective allowance for credit losses included in Tier 2 capital	<b>(1)</b>	(1)	10
Securities*	<b>59,486</b>	56,149	
* Of Which: Investments In Capital Of Financial Corporations That Do Not Exceed 10% Of The Share Capital Of The Financial Corporation	<b>413</b>	578	
* Of Which: Investments In Capital Of Financial Corporations That Exceed 10% Of The Share Capital Of The Financial Corporation, And Do Not Exceed The Deduction Threshold	-	41	
* Of Which: Other Securities	<b>59,073</b>	55,530	
Securities borrowed or purchased under agreements to resell	<b>471</b>	708	
Credit to the public	<b>297,647</b>	300,870	
* Of which: investments in capital of financial corporations that exceed 10% of the share capital of the financial corporation, and do not exceed the deduction threshold	<b>473</b>	553	
* Of which: investments in capital of financial corporations that do not exceed 10% of the share capital of the financial corporation	<b>1,030</b>	1,224	
Allowance for credit losses*	<b>(4,707)</b>	(3,997)	
* Of which: collective allowance for credit losses included in Tier 2 capital	<b>(3,299)</b>	(3,395)	10
* Of which: allowance for credit losses not included in supervisory capital	<b>(1,408)</b>	(602)	
Net credit to the public	<b>292,940</b>	296,873	
Credit to governments	<b>1,971</b>	2,428	
* Of which: collective allowance for credit losses included in Tier 2 capital	<b>(6)</b>	(7)	10
Investment in equity-basis investees*	<b>1,041</b>	109	
* Of which: investments in capital of financial corporations that exceed 10% of the share capital of the financial corporation, and do not exceed the deduction threshold	<b>905</b>	62	
* Of which: goodwill and intangible assets	<b>11</b>	-	11
Buildings and equipment	<b>3,233</b>	3,467	
Assets in respect of derivative instruments	<b>11,143</b>	10,534	
Other assets*	<b>5,281</b>	6,177	
* Of which: deferred tax assets**	<b>3,856</b>	3,679	
** Of which: deferred tax assets attributed to timing differences, over 10% of common equity Tier 1 capital	-	-	
** Of which: deferred tax assets excluding those attributed to timing differences	<b>50</b>	34	6
** Of which: liability in respect of deferred tax on goodwill and intangible assets	<b>(4)</b>	-	12
** Of which: other deferred tax assets	<b>3,810</b>	3,645	
* Of which: additional other assets	<b>1,425</b>	2,498	
<b>Total assets</b>	<b>463,688</b>	460,926	

\* These balances include the activity of the credit-card companies, which is classified in the financial statements as a discontinued operation.

**Table Q-1: Connection between the balance sheet and supervisory capital components (continued)**

	<b>December 31, 2019</b>	December 31, 2018*	References to components of supervisory capital
	Consolidated supervisory balance sheet		
	NIS millions		
<b>Liabilities and capital</b>			
Deposits from the public	<b>361,645</b>	352,342	
Deposits from banks	<b>3,520</b>	5,228	
Deposits from the government	<b>685</b>	208	
Securities lent or sold under agreements to repurchase	<b>3</b>	-	
Bonds and subordinated notes*	<b>26,853</b>	30,024	
* Of which: subordinated notes not recognized as supervisory capital	<b>6,156</b>	8,263	
* Of which: subordinated notes recognized as supervisory capital**	<b>6,662</b>	7,108	
** Of which: qualifying as supervisory capital components	<b>2,894</b>	1,823	
** Of which: not qualifying as supervisory capital components and subject to transitional directives	<b>3,768</b>	5,285	9
Liabilities in respect of derivative instruments*	<b>12,050</b>	9,676	
* Of which: in respect of own credit risk	<b>2</b>	4	8
Other liabilities	<b>20,711</b>	25,792	
* Of which: collective allowance for credit losses included in Tier 2 capital	<b>472</b>	508	10
<b>Total liabilities</b>	<b>425,467</b>	423,270	
Shareholders' equity*	<b>38,181</b>	37,544	
* Of which: ordinary share capital and premium, retained earnings, other comprehensive loss, and capital reserves**	<b>38,181</b>	37,544	
** Of which: ordinary share capital	<b>1,335</b>	1,334	1
** Of which: premium on ordinary shares	<b>6,832</b>	6,801	2
** Of which: retained earnings	<b>31,346</b>	30,565	3
** Of which: accumulated other comprehensive loss***	<b>(1,352)</b>	(1,194)	4A
*** Of which: adjustments for presentation of securities available for sale at fair value	<b>247</b>	(163)	
*** Of which: net losses in respect of cash-flow hedges	<b>(1)</b>	(1)	7
*** Of which: net adjustments from translation, after hedge effects	<b>(37)</b>	(37)	
** Of which: capital reserves from a benefit due to share-based payment transactions	<b>20</b>	38	4B
Non-controlling interests*	<b>40</b>	112	
* Of which: non-controlling interests attributable to common equity Tier 1 capital	<b>15</b>	40	5
* Of which: non-controlling interests not attributable to supervisory capital	<b>25</b>	72	
<b>Total capital</b>	<b>38,221</b>	37,656	
<b>Total liabilities and capital</b>	<b>463,688</b>	460,926	

\* These balances include the activity of the credit-card companies, which is classified in the financial statements as a discontinued operation.



Table Q-2: Connections between the financial statements and supervisory exposures

	December 31, 2019					
	Balance sheet balances as reported in the published financial statements and according to the supervisory consolidation base	Balance sheet balances of items:				
		Subject to a credit risk limit	Subject to a counterparty credit risk limit	Subject to a securitization limit	Subject to a market risk limit	Not subject to capital requirements or subject to deduction from the capital base
NIS millions						
<b>Assets</b>						
Cash and deposits with banks	88,122	88,122	-	-	-	-
Securities	59,486	52,879	-	-	6,607	-
Securities borrowed or purchased under agreements to resell	471	471	-	-	-	-
Credit to the public	297,647	297,591	-	56	-	-
Allowance for credit losses	(4,707)	(1,408)	-	-	-	(3,299)
Net credit to the public	292,940	296,183	-	56	-	(3,299)
Credit to governments	1,971	1,971	-	-	-	-
Investment in equity-basis investees	1,041	1,041	-	-	-	-
Buildings and equipment	3,233	3,233	-	-	-	-
Assets in respect of derivative instruments	11,143	-	11,143	-	-	-
Other assets	5,281	4,878	-	-	-	403
<b>Total assets</b>	<b>463,688</b>	<b>448,778</b>	<b>11,143</b>	<b>56</b>	<b>6,607</b>	<b>(2,896)</b>
<b>Liabilities</b>						
Deposits from the public	361,645	-	-	-	-	-
Deposits from banks	3,520	-	-	-	-	-
Deposits from the government	685	-	-	-	-	-
Securities lent or sold under agreements to repurchase	3	-	-	-	-	-
Bonds and subordinated notes	26,853	-	-	-	-	-
Liabilities in respect of derivative instruments	12,050	-	-	-	-	-
Other liabilities	20,711	-	-	-	-	-
<b>Total liabilities</b>	<b>425,467</b>	-	-	-	-	-

**Table Q-2: Connections between the financial statements and supervisory exposures (continued)**

	December 31, 2018					
	Balance sheet balances as reported in the published financial statements and according to the supervisory consolidation base	Balance sheet balances of items:				
		Subject to a credit risk limit	Subject to a counterparty credit risk limit	Subject to a securitization limit	Subject to a market risk limit	Not subject to capital requirements or subject to deduction from the capital base
NIS millions						
<b>Assets</b>						
Cash and deposits with banks	84,481	84,481	-	-	-	-
Securities	56,149	49,771	-	-	6,378	-
Securities borrowed or purchased under agreements to resell	708	708	-	-	-	-
Credit to the public	300,870	300,771	-	99	-	-
Allowance for credit losses	(3,997)	(594)	-	-	-	(3,403)
Net credit to the public	296,873	300,177	-	99	-	(3,403)
Credit to governments	2,428	2,428	-	-	-	-
Investment in equity-basis investees	109	109	-	-	-	-
Buildings and equipment	3,467	3,467	-	-	-	-
Assets in respect of derivative instruments	10,534	-	10,534	-	-	-
Other assets	6,177	5,887	-	-	-	290
<b>Total assets</b>	<b>460,926</b>	<b>447,028</b>	<b>10,534</b>	<b>99</b>	<b>6,378</b>	<b>(3,113)</b>
<b>Liabilities</b>						
Deposits from the public	352,342	-	-	-	-	-
Deposits from banks	5,228	-	-	-	-	-
Deposits from the government	208	-	-	-	-	-
Securities lent or sold under agreements to repurchase	-	-	-	-	-	-
Bonds and subordinated notes	30,024	-	-	-	-	-
Liabilities in respect of derivative instruments	9,676	-	-	-	-	-
Other liabilities	25,792	-	-	-	-	-
<b>Total liabilities</b>	<b>423,270</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Table Q-3: Main sources of differences between supervisory exposure amounts and balance sheet balances in the financial statements**

	<b>December 31, 2019</b>				
	Total	Items to which the following apply:			
		Credit risk limit	Counterparty credit risk limit	Securitization limit	Market risk limit
	NIS millions				
Amount of balance sheet balance of assets according to supervisory consolidation base	<b>463,688</b>	<b>445,882</b>	<b>11,143</b>	<b>56</b>	<b>6,607</b>
Amount of balance sheet balance of liabilities according to supervisory consolidation base	-	-	-	-	-
Total net amount according to supervisory consolidation base	<b>463,688</b>	<b>445,882</b>	<b>11,143</b>	<b>56</b>	<b>6,607</b>
Off-balance sheet amounts	<b>171,185</b>	<b>54,523</b>	<b>10,754</b>	-	-
Additional differences caused by different netting rules	<b>(18,510)</b>	<b>(6,604)</b>	<b>(11,906)</b>	-	-
Differences caused by provisions	<b>3,299</b>	<b>3,299</b>	-	-	-
Other differences	<b>(193)</b>	<b>(193)</b>	-	-	-
Exposure amounts taken into account for supervisory purposes	<b>619,469</b>	<b>496,907</b>	<b>9,991</b>	<b>56</b>	<b>6,607</b>
	December 31, 2018				
	Total	Items to which the following apply:			
		Credit risk limit	Counterparty credit risk limit	Securitization limit	Market risk limit
NIS millions					
Amount of balance sheet balance of assets according to supervisory consolidation base	460,926	443,915	10,534	99	6,378
Amount of balance sheet balance of liabilities according to supervisory consolidation base	-	-	-	-	-
Total net amount according to supervisory consolidation base	460,926	443,915	10,534	99	6,378
Off-balance sheet amounts	186,039	53,449	12,354	94	-
Additional differences caused by different netting rules	(18,216)	(7,546)	(10,670)	-	-
Differences caused by provisions	3,403	3,403	-	-	-
Other differences	119	119	-	-	-
Exposure amounts taken into account for supervisory purposes	632,271	493,340	12,218	193	6,378

**Note:**

Includes amounts below the deduction thresholds (subject to 250% risk weight) not included in Table D-17.

### **Establishing the fair value of financial instruments**

Pursuant to ASC 820-10 (FAS 157), fair value is defined as the price that would be obtained from the sale of an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date. In order to assess fair value, the standard requires the maximum possible use of observable inputs, and minimum use of unobservable inputs. Observable inputs represent information available in the market and received from independent sources, whereas unobservable inputs reflect the assumptions of the Bank. ASC 820-10 specifies a hierarchy of measurement techniques, based on whether the inputs used to establish fair value are observable or unobservable. These types of inputs form the following fair-value hierarchy:

- Level 1 data: Prices quoted (unadjusted) in active markets for identical assets or liabilities, accessible to the Bank at the measurement date.
- Level 2 data: Directly or indirectly observable inputs regarding the asset or liability other than quoted prices included in Level 1.
- Level 3 data: Unobservable inputs regarding the asset or liability.

The hierarchy requires the use of observable market inputs when such information is available. In the classification of the data used to measure fair value into the different levels of the fair-value hierarchy, the Bank classifies the overall fair-value measurement as the lowest level of an input significant for the overall measurement.

Fair-value measurements of financial instruments are performed without taking a blockage factor into consideration, both for financial instruments evaluated according to Level 1 data and for financial instruments evaluated according to Level 2 or 3 data, with the exception of situations in which a premium or discount would be taken into account in the fair-value measurement by market participants in the absence of Level 1 data.

### **Assessment of credit risk and nonperformance risk**

ASC 820 (FAS 157) requires the Bank to reflect credit risk and nonperformance risk in measuring the fair value of debt, including derivative instruments, issued by the Bank and measured at fair value. Nonperformance risk includes the credit risk of the Bank, but is not limited to this risk alone.

The Bank assesses credit risk in derivative instruments in the following manner:

- When sufficient liquid collateral exists in respect of the exposure, specifically securing the derivative instrument at a high degree of legal certainty, the Bank takes such collateral into consideration in determining the credit risk.
- When exposure in respect of the counterparty is material, the Bank performs a fair-value assessment based on indications of the quality of credit of the counterparty from transactions in an active market, insofar as such indications are available with reasonable effort. The Bank derives these indications, among other matters, from prices of debt instruments of the counterparty traded in an active market, and from prices of credit derivatives the basis for which is the quality of credit of the counterparty. If no such indications exist, the Bank calculates the adjustments based on internal ratings (e.g. estimates of expected default rates and rates of credit losses in the event of default).

The calculation is performed based on an internal model that assumes various scenarios regarding the value of the transactions.

**Addendum B: Securitization exposures**

The volume of the Bank's exposure in respect of securitization is approximately NIS 56 million.

1. During the third quarter of 2019, the Bank stopped supplying liquidity lines to securitization entities in which third parties serve as the sponsors. The total liquidity lines supplied to securitization entities, as described above, as at December 31, 2018, amounted to NIS 187 million (approximately USD 50 million).
2. During the second quarter of 2018, the Bank entered into a transaction for the financing of receivables portfolios as an investor, within which the Bank granted loans in a total amount of approximately NIS 120 million, backed by receivables portfolios transferred by the initiator to a special purpose entity (SPE). The balance of the transaction as at December 31, 2019 totaled NIS 56 million. The risk weight applied to the amount of the exposure in respect of the transaction is determined according to the risk weight derived from the A- rating assigned by the rating agency S&P Global Ratings.